

Hunterian Society


REPORT.



SESSION 1888-89.



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ABSTRACT OF THE TRANSACTIONS
OF THE
HUNTERIAN SOCIETY,
SESSION 1888-89,
WITH THE
REPORT OF THE COUNCIL,
AND A
LIST OF OFFICERS AND FELLOWS.

SOCIETY INSTITUTED FEBRUARY, 1819.

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1889.

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SEVENTIETH
ANNIVERSARY MEETING,

Wednesday, February 13th, 1889.

R. CLEMENT LUCAS, B.S., President, in the Chair.

THE Secretary having read the Report of the Council, it was
RESOLVED :—

- I.—That the Report be received, printed, and circulated amongst the Fellows.
- II.—That the thanks of the Society be presented to the President for his valuable services during the year.
- III.—That the thanks of the Society be presented to the Vice-Presidents, the Treasurer, and the Librarian, for the zealous performance of their duties.
- IV.—That the thanks of the Society be given to the Council, Secretaries, and Auditors.

HONORARY FELLOWS.

SIR WILLIAM JENNER, Bart., M.D., K.C.B., D.C.L., LL.D., F.R.S., Physician-in-Ordinary to H.M. the Queen, and H.R.H. the Prince of Wales, 63, *Brook Street, W.*

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SAMUEL GROSS, M.D., LL.D., Professor of Surgery in the Jefferson Medical College, Philadelphia.

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- 1888 RYLE, REGINALD J., M.B. *Hadley Green, High Barnet, Herts.*
- 1889 SANSOM, H. A., M.B. 36, *New Broad Street, E.C.*
- 1853 **SAUNDERS, W. SEDGWICK, M.D., F.S.A., late President, Medical
Officer of Health for the City of London, 13, *Queen Street,*
Cheapside, E.C.
- 1884 SCARTH, ISAAC, M.B. 29, *Amwell Street, E.C.*
- 1842 **SEWELL, CHARLES BRODIE, M.D.. 21, *Cavendish Square, W., and*
13, Fenchurch Street, E.C.
- 1888 SHAW, LAURISTON E., M.D., Medical Registrar and Demonstrator of
Practical Medicine at Guy's Hospital, 15, *St. Thomas's St., S.E.*
- 1854 **SHILLITOE, BUXTON, Esq., Surgeon to the Lock Hospital, 2, *Frederick*
Place, Old Jewry, E.C.
- 1869 SMEE, ALFRED H., Esq., Vice-President, *The Grange, Hackbridge,*
Surrey.
- 1887 SMITH, FREDERICK JOHN, M.D., Medical Registrar at the London
Hospital 7, *West St., Finsbury Circus, E.C.*
- 1875 STEVENS, GEORGE J. B., Esq., *Wadhurst House, Newington Green,*
Stoke Newington, N.
- 1869 STEWART, ALEXANDER, Esq. 112, *Cheapside, E.C.*
- 1884 STOWERS, JAMES HERBERT, M.D., (C), Physician for Diseases of the
Skin at the North-West London Hospital, 23, *Finsbury Circus, E.C.*
- 1864 **SUTTON, HENRY G., M.B., Physician to the London Hospital,
9, Finsbury Square, E.C.
- 1880 SYMONDS, C. J., M.S., M.D., Assistant Surgeon to, and in charge of
Throat Department, and Demonstrator of Morbid Histology at,
Guy's Hospital 26, *Weymouth Street, Portland*
Place, W.
- 1878 TALBOT, R. M., Esq. *Clarendon House, Bow Road, E.*
- 1889 TARGETT, T. H., M.B., B.S., Assistant Surgeon to the Evelina Hos-
pital 15, *St. Thomas's Street, S.E.*
- 1879 TATHAM, R. G., Esq. (C) 6, *East India Road, E.*
- 1869 TAY, WARREN, Esq., Surgeon to the London Hospital, 4, *Finsbury*
Square, E.C.

When
Admitted.

1880	THORP, HENRY J., Esq.	...	...	29, Southwark Bridge Road, S.E.
1883	TODD, WILLIAM, Esq.	...	...	301, Mile End Road, E.
1869	*TOULMIN, W. C., Esq.	...	...	102, Elm Park Gardens, South Kensington, S.W.
1877	TURNER, F. CHARLEWOOD, M.D., Secretary, Physician to the London Hospital	...	...	15, Finsbury Square, E.C.
1857	*WALLACE, R. U., M.B.	...	...	Cravenhurst, Craven Park, Stamford Hill.
1877	WALLACE, FREDERICK, Esq.	...	...	96, Cazenove Road, Clapton, E.
1887	WARNER, PERCY, Esq.	...	...	Woodford Green, Woodford, Essex.
1889	WASHBOURN, T. W., M.D., B.S., Demonstrator of Anatomy at Guy's Hospital	...	...	24, Maze Pond, S.E.
1888	WEBB, A. W., M.D.	...	...	88, Albion Road, Stoke Newington, N.
1876	WELCH, C., Esq.	...	...	377, Hackney Road, E.
1876	WHITE, J. B., M.D.	...	...	Homerton Union, N.
1888	WIGHTWICK, FALLON PERCY, M.B.	...	...	St. John's, Horselydown, S.E.
1888	WINGRAVE, THOS., Esq.	...	...	7, West St., Finsbury Circus, E.C.
1887	WOODS, JOHN F., Esq.	...	...	Hoxton House Asylum, N.
1888	WOOLDRIDGE, LEONARD C., M.D., Assistant Physician to, and Demonstrator of Physiology at, Guy's Hospital, 24, Trinity Sqre., S.E.	...	...
1882	WORLEY, WILLIAM C., Esq.	...	...	1, The Terrace, Green Lanes, N.
1889	WRIGHT, H. H., M.D.	...	...	2, Ospringe Road, St. John's College Park, N.W.
1880	YARROW, C. E., M.D.	...	...	87, Old Street, E.C.

[It is requested that any change of Title, Appointment, or Residence may be communicated to the Secretaries before the Annual General Meeting, in order that the list may be made as correct as possible.]

CORRESPONDING FELLOWS.

BARNARD, JOHN H., M.D.	...	...	...	Paris.
CANFIELD, RALPH M., Esq.	...	...	...	Boston, U.S.A.
ELKINGTON, GEORGE, Esq.	...	...	...	Birmingham.
MIDDLEMORE, RICHARD, Esq.	...	...	...	Birmingham.
ROBERTS, BARNSBY B., Esq.	...	...	...	Eastbourne.
THORNHILL, J. H., Esq.	...	...	...	Willenhall, Staffordshire.
TREVES, WILLIAM KNIGHT	...	...	...	Margate.

N.B.—Written Communications on Medical Subjects and Donations of Books will be thankfully received.

THE SEVENTIETH ANNUAL REPORT

OF THE

COUNCIL OF THE HUNTERIAN SOCIETY.

IN presenting the Seventieth Annual Report to the Society, the Council have much pleasure in stating that the progress of the Society during the past twelve months has been most satisfactory, both with regard to the position of its affairs, and the interest of the meetings.

During the Session many valuable and interesting communications have been made to the Society, amongst the most important of which may be mentioned those, by Dr. BARNES, on "The recent Triumphs of Surgery," by Mr. HUTCHINSON, "On Conditions allied to Raynaud's Disease," and by Dr. PYE-SMITH, "On Invagination of the Intestines." And the work of the Society has been diversified by devoting certain evenings to the demonstration of Clinical cases, and of Pathological specimens, which have been amongst the most interesting meetings of the Session. This very successful innovation in the course of the proceedings was instituted by the Council at the suggestion of the President, to whose active interest in its prosperity, and judicious conduct of its business, the Society is greatly indebted.

By the kind permission of the Board of Managers of the London Institution, the Society's Library and large book-case have been accommodated in a room in the basement of the building, which is open to the use of the Fellows. A large number of recent medical works, including several series of

Hospital Reports, have been added to the Library.* The revision of the Catalogue has been kindly undertaken by the Hon. Librarians.

At a Special General Meeting, held on October 10, it was determined to substitute the title of Fellow for that of Member in the Society's Laws.

Five Fellows have died during the past twelve months: Mr. T. BLIZARD CURLING, F.R.S., Mr. D. DE BERDT HOVELL, Mr. CHAS. T. BLACKMAN, Dr. JOHN MILLAR, and Mr. H. L. SEQUEIRA. One Fellow has resigned on account of ill health.

THOMAS BLIZARD CURLING was a nephew of Sir William Blizard, one of the founders of the Society, and its first President. He was elected in 1833, and was the second on the roll of Fellows. He was Vice-President in 1840 and 1841, Orator in 1848, and President in 1855. Mr. Curling was Consulting Surgeon to the London Hospital, and a most distinguished Member of the Society. Having retired from practice for many years, he had long ceased to take part in its work.

DENNIS DE BERDT HOVELL was elected in 1850, was Orator in 1866, Vice-President in 1866—7, and President in 1871. In 1875 he was appointed Trustee to the Society, and held that office until his death. He took the warmest interest in the prosperity of the Society, and until he went to reside in the country, was a constant attendant at its meetings. Within six months of his decease he read a paper before the Society, which elicited a valuable and interesting discussion. He enjoyed the high esteem and affectionate regard of many friends, by whom his loss will be deeply regretted.

The Council have appointed Mr. CORNER to fill the office of Trustee, left vacant by the death of Mr. Hovell.

* See page 18.

The abstract of the Proceedings of the Society in the Annual Report has been extended, and its form improved, by the junior Honorary Secretary.

Sir WM. JENNER, Sir JAMES PAGET, and Sir JOSEPH LISTER, have been elected Honorary Fellows, and Professors PASTEUR and CHARCOT of Paris, Professor VIRCHOW of Berlin, and Professors BILLINGS and GROSS of the United States, have been elected Foreign Honorary Fellows, on the nomination of the Council.

Twenty-two Ordinary Fellows have been admitted during the Presidential term. The number of Fellows now on the roll is 148.

The Treasurer's Report shews that the funds of the Society are in a satisfactory condition, the expense of moving the Library and book-case, with the necessary alterations in the latter, and of providing the additional accommodation required for the books, being met out of income.

The Librarians' Report expresses satisfaction with the condition and arrangement of the books.

BOOKS PRESENTED TO THE LIBRARY

OF THE HUNTERIAN SOCIETY, 1888-1889.

The following Works have been added to the Library, most of them having been presented to the Society, by the Authors and by the Authorities of the Medical Schools, in response to requests made on its behalf by the President, with the sanction of the Council.

Dr. LAUDER BRUNTON	...	Pharmacology.
		Therapeutics and Materia Medica.
		Disorders of Digestion.
		Pharmacology and Therapeutics.
Dr. BRISTOWE	...	... Diseases of the Nervous System.
Dr. BARNES	...	... Obstetric Medicine and Surgery.
Mr. BRYANT	...	... Diseases of the Breast.
Mr. BARRETT	...	... Dental Surgery.
Dr. DUNCAN	..	... Researches in Obstetrics.
		Fecundity and Sterility.
		Clinical Lectures on the Diseases of Women.
		Mortality of Childbed and Maternity Hospitals.
		Sterility in Women.
		Papers on the Female Perineum.
		On Parametritis and Perimetritis.
		Mechanism of Natural and Morbid Parturition.
Dr. LANGDON DOWN	...	... Mental Affections of Childhood and Youth.
Dr. PYE-SMITH	...	... Fagge's Principles and Practice of Medicine, 2 vols.
SIR JAMES PAGET	...	... Clinical Lectures and Essays.
		Lectures on Surgical Pathology.
Mr. RIVINGTON	...	... Rupture of the Urinary Bladder.
		The Medical Profession, 1887.
Mr. SEWELL	...	... Dental Caries and its Prevention.
SIR HENRY THOMPSON	...	... Diseases of the Urinary Organs.
		Diseases of the Prostate.
		Diseases of the Urethra.

REPORTS.

St. Bartholomew's Hospital Reports, 4 vols., 1885—1888.

St. George's Hospital Reports, 12 vols., 1866—1881.

Guy's Hospital Reports, 7 vols.

St. Thomas's Hospital Reports, 17 vols, 1870—1887.

London Hospital Reports, 2 vols., 1865 and 1867.

Clinical Society's Reports, 21 vols.

Royal College of Surgeons' Calendar.

PAMPHLETS.

Mr. SAVORY The Hunterian Oration,
The Bradshawe Lecture.

SIR SPENCER WELLS ... The Morton Lecture.

Dr. MADDER The Recent Progress of Obstetric Medicine.

BOOKS PURCHASED, 1888-1889.

Heath's Dictionary of Surgery, 2 vols.

Quain's Dictionary of Medicine, 2 vols.

Complete Series of Charles Darwin's Works, 11 vols.

REGULATIONS FOR TRANSMISSION OF BOOKS TO FELLOWS
FROM THE LIBRARY.

1. A Fellow wishing a Library Book sent to him, may order the book by letter to the Assistant Librarian, enclosing six Stamps in prepayment of carriage and packing.
2. The Library attendant will pack and send Books to Fellows, enclosing the usual receipt form in each parcel with the books, and shall receive twopence for each package so sent.
3. To prevent loss, in case of a Fellow forgetting to send back the receipt, the letter requesting the book to be sent shall be kept by the Assistant Librarian, and the Library Attendant shall keep a list of the books packed by him, and of Fellows to whom they have been sent.

HUNTERIAN SOCIETY.

BALANCE SHEET FOR 1888-1889.

PAYMENTS.					
To	£	s.	d.		
Purchase of Books	39	11	9		
Subscription to Lewis' Library	2	2	0		
" Insurance	2	8	7		
" Printing, including the Report, Cards, Lists, Circulars, Notices, &c.	0	10	9		
" Dinner Tickets for invited Guests	15	15	0		
" Stationery and Postages	5	0	0		
" Die Engraving and petty expenses	4	4	0		
" Mr. Williams (Sub-Librarian)	6	15	0		
" Mr. Goodman (Attendant)	1	1	0		
" Messrs. Nelson & Lusher (Porters)	18	19	0		
" Refreshments, Tea, Coffee, &c.	4	0	6		
" Housekeeper's Gratuity	29	3	8		
" Moving and reconstructing Book-case, and Moving Library					
" Collector's Commission and Expenses					
" Balance in hand					
	£141	4	9		

AUDITORS' REPORT.—We, the undersigned, having examined the foregoing Accounts, together with the Vouchers, find a balance of £29 3s. 8d. due from the Treasurer. The funded property of the Society amounts to £300.

January 10th, 1889.

(Signed)

{ WAREN TAY.
} T ROWING FENDICK.

SESSION 1888-1889.

A Meeting of the Hunterian Society was held at the London Institution, on Wednesday, February 22nd, 1888. Mr. R. CLEMENT LUCAS, President, in the Chair.

The President, in taking the chair for the first time, said he was not in any way prepared to give them an address, but desired, chiefly to thank them for electing him to the presidential chair. He did thank them most sincerely, and assured them also that he considered it a high honour to occupy a position which had been worthily filled by many eminent men. He was sure they would all be interested in the paper about to be read that evening by Dr. Smith, dealing, as it did, with a subject which was of deep interest to all of them. The word Pathology naturally caused their thoughts to go back to the earliest times, to ancient mythology, to the times when it was thought that diseases were caused by the actual presence of devils in the interior of the human system, and that it was necessary to cast them out before the patient could recover. He then proceeded to trace the history of pathology, from the time of Harvey's discovery of the circulation of the blood, to that of humoral pathology, to the labours of Hunter, and to cellular pathology, showing the advances down to the present day, when the germ theory was claiming the attention of all medical scientists. Most diseases were now said to be due to minute organisms; and he instanced the bacillus of anthrax, that described by Koch, that of phthisis; also chyluria was now found to be due to filaria, relapsing fever to spirillum, gonorrhœa to micrococci in the pus.

Dr. F. J. Smith then read a paper entitled "*A few Remarks on the Advances in Therapeutics due to the recognition of Micro-Organisms as the Causes of Disease.*"

He divided micro-parasitic diseases into the following groups :
 (i). All forms of wound infection septicæmic and pyæmic.
 (ii). The older zymotic diseases. (iii). Infectious diseases, at first local, but rapidly becoming general ; and showed how universal was now becoming the practice of applying germicidal remedies in all the cases, and what striking results had in some cases been obtained by these means. He concluded his paper by a short mention of inoculation as a preventitive agent against all micro-parasitic diseases, showing that though the principle was well recognised, we are still in the dark as to the precise scientific grounds on which its undoubted utility is based.

The President having thanked Dr. Smith for his able and interesting paper, invited discussion on the subject.

Dr. Gilbert mentioned that Professor Poli, of Milan, had stated, many years ago, that when animals received an injection of septicæmic material fatal consequences were averted by administering sulphites. He then quoted two cases in which this remedy had been applied in puerperal septicæmia with very successful results. The first was a case in which the patient miscarried in the third month of pregnancy, just as she was beginning to recover from typhoid fever. He found it impossible to extract the placenta, and immediately began to give her large doses of sulphite of soda. She made a good recovery, and although she had repeated rigors, the subsequent symptoms appeared to be entirely prevented. In the other case, after a natural labour, he found the placenta so firmly adherent to the uterus that it was impossible to detach a portion of it, which he estimated to be about one-third. In that case also he began to administer the sulphite at once, and the same striking results presented themselves. He noticed in the latter case that the vaginal discharges had an odour entirely different to that which ordinarily occurred from the decomposition of anything in the uterus. These cases occurred in his practice some years ago, before the importance of micro-organisms in the production of disease had assumed anything

like its present prominence in the minds of the profession. He remembered, further, that in cases of enteric fever, a German authority had recommended carbolic acid and tincture of iodine. He (Dr. Gilbert) had tried it in some cases of typhoid, but they were not numerous enough to enable him to speak with anything like confidence of the result; but where he had tried it, it seemed scarcely open to doubt that the disease was really aborted.

Mr. Stevens, while admitting the importance of bacteriology, contended that it should not be regarded as the conclusive theory of disease-production. Just as other theories had to give place to that, so would it in time give way, most probably, to more enlightened views. Sanitation had developed up to bacteriology, which was its highest development. Most of them knew how theories altered, and what novel remedies had been suggested, and he then mentioned the question of specifics. The germ theory, he repeated, should not be placed as a pinnacle to their research, but they should look upon it as merely progressive, and not be surprised to find it giving way to something else.

Mr. Corner explained the views, as regards treatment, put forward many years ago by Dr. Budd of Bristol, and also his ideas as to the destruction of germs in the excreta. He himself was in the habit of adopting the plan recommended by Dr. Alfred Carpenter some years ago—as regards the skin in scarlet fever during the defervescence of the disease—viz., the use of an antiseptic bath for three or four nights, and then allowing these scarlet fever patients to mix with others. He also quoted the practice of an old Guy's Hospital Surgeon who treated inveterate cases of gonorrhœa by perchloride of mercury.

The President drew the attention of the society to Dr. Wooldridge's paper, read before the Royal Society, on the destruction of germs by material injected into the blood.

Mr. Lingard regretted that he had not heard the whole of the paper; had he known its character, he should have been pleased to come prepared with some details for discussion. He quoted experiments made on animals, in whom the action of anthrax virus was nullified by injections—many animals so treated were now alive after inoculation. He was a great believer in perchloride of mercury, and mentioned experiments made by injecting this substance subcutaneously into animals,

and the subsequent inoculation of anthrax with impunity. He thought that there should be special hospitals for phthisis, containing rooms in which antiseptics could be inspired and injections frequently carried out. A remarkable case which had come under his notice was then related; it occurred in a girl who had a small sore on the thumb, and who had been attending her master, who was dying of phthisis; she was in the habit of removing the receptacle containing his expectoration, and suddenly noticed after a few days that there was a painful swelling at the thumb-nail at the site of the sore. She went to her medical man, who rightly considered it a case of inoculation with tubercle. There were enlarged glands in the axilla and at the elbow; both the sore and the glands were excised, and tubercle bacilli found in both. Complete recovery took place, and when last heard of the girl was quite well. In conclusion, speaking of typhoid, he did not think that sufficient importance was attached to the height of the fever; if the temperature was only lowered—by antipyrin, for instance—we should never get a death from typhoid.

Dr. G. A. Carpenter quoted the case of a medical man who had been attending a malignant case of diphtheria and whose throat was inoculated. On examination, a black slough was found on the left tonsil. He (Dr. Carpenter) suggested the application of the actual cautery. His friend acquiescing, it was completely excised, with the result that he felt better soon after, and the feeling of malaise entirely gone; complete recovery followed. The treatment of whooping-cough by carbolic acid was then discussed, and the method of using this by means of the steam-kettle, as employed at the Evelina Hospital, was mentioned.

Dr. Smith, in reply, thanked the Society for the kind way in which his paper had been received, and for the many suggestions that had been made. Alluding to the last case brought forward, there was no doubt as to the source of infection and the treatment adopted. As to cholera, he thought that that too would yield to the treatment resorted to in germ-produced diseases, although this had not yet been proved. The best remedy for cancer at the present time was to be found in the use of the knife.

The meeting then adjourned.

A Meeting of the Hunterian Society was held at the London Institution, on Wednesday, March 28th. Mr. R. CLEMENT LUCAS in the Chair.

Dr. JOSEPH L. HEWER and Dr. ALEXANDER BURGER were proposed as members.

Dr. R. J. Ryle read a paper, "*Notes on a case of Tympanites treated by Puncture through the Abdominal Wall.*"

The patient, a man of 46 years of age, came under treatment in October, 1887, with vomiting, paroxysmal pain, and constipation of about ten days' duration. He had suffered during the summer from frequent irregularity of the bowels, and had recently taken much purgative medicine without effect. Examination of the abdomen shewed considerable fulness, more especially along a broad curved area, which was dull on percussion below the umbilicus, but no tumour was felt, and examination per rectum revealed nothing. Enemata could not be retained in larger quantity than three-quarters of a pint, and the use of O'Beirne's tube gave no certain information in aid of diagnosis. Vomiting and pain subsided under treatment, and after three weeks of constipation the bowels acted freely. But after three days of relief, constipation recurred with the additional symptom of great flatulent distension. In accordance with the diagnosis of obstruction near "the sigmoid," colotomy was proposed. This was declined by the patient, and puncture of the intestine, to relieve distention, was resorted to, as the only treatment which promised relief. At this time the patient was very emaciated; a bedsore was threatening; the pulse was 130, and respiration much impeded. Eight punctures were made, with considerable relief to the distension, but with the result of setting up an attack of violent peristaltic contraction about half an hour afterwards. Next day the temperature was normal, and the pulse 100. Three days later it was necessary to puncture again, and two precautions were used to prevent the excitement

of peristalsis, viz.—(1), a hypodermic injection of morpho-atropine beforehand; and (2), the employment of a somewhat larger aspirating needle. The injection was given half an hour before puncturing, and only three punctures were made in the bowel. A very large quantity of gas was let off; no violent peristalsis followed; and 48 hours later the bowels were freely opened. About a fortnight of comparative health followed; after which symptoms of obstruction returned, and puncture again became necessary. The operation was done with the same precautions as on the former occasion, and in the course of the following three weeks was four times repeated. Great temporary relief was gained by the relief of distension, but the patient gradually sank, and died after seven weeks of constipation. Post-mortem examination disclosed an annular stricture at the first part of the rectum. There was no evidence of any peritonitis or extravasation of fæces, and with the exception of certain small black spots, no trace of the puncture was visible in the wall of the bowel.

The first point of interest in the case was with reference to the possibility or impossibility of localising the seat of the obstruction. There were all the signs of chronic obstruction low down, with sensations on the part of the patient of fulness of the lower bowel, and absence of power to empty the bowel. There was no history of narrowed motions, and nothing to be felt, either by external or rectal examination. The indications of the long tube were evidently untrustworthy; but enemata given often and with care were always returned when less than a pint had been injected. These facts, with the general course of the case, formed the data for the diagnosis. The second point of interest was the treatment by puncture. The relief afforded by this procedure was of value for three reasons—(1), as checking the respiratory and circulatory difficulties consequent on extreme distension; (2), as diminishing the direct risks of distension—viz., rupture and peritonitis; (3), as favouring the

re-establishment of the normal intestinal action. The chief mode, however, in which puncture tends to produce evacuation of the bowel is by exciting brisk peristalsis, and this is a result which (as in the present instance) may require to be guarded against. As to the dangers of intestinal puncture, it is impossible to state that there are none. Thinning or ulceration of some part of the bowel may convert a puncture into a rent. The same might happen from movement of the impaled bowel while the needle is in it, or liquid fæces might be conveyed from the hollow needle on withdrawing it out of the bowel to the peritoneum. But a much less hypothetical danger seems to be the rupture of the diseased bowel by the violent peristalsis set up by puncturing, especially if the intestinal movement is not checked by opium, or if the puncturing is very free. The reality of this risk is shewn (possibly) by the history of a case of Dr. Bristowe's, recorded in the "Pathological Society's Transactions for 1872," and still more clearly by a case recorded in 1878, in the *British Medical Journal*, by Dr. Coupland and Mr. Morris, in which rupture was due to peristalsis caused by puncture. If this view of the nature of the danger of puncturing the bowel is correct, the proceeding comes to resemble the administration of ergot during labour, and the cases *most* suitable for the treatment would seem to be those which are known to be characterized by healthy bowel, and an absence of insuperable obstruction, such as sometimes occur in obstetric practice, or after abdominal operations. Perhaps, too, as has been suggested by Dr. Galabin, this treatment may be of use in commencing peritonitis. The beneficial effects of simple relief of tension in checking the progress of inflammation are shewn in periostitis and cellulitis, and probably a few needle punctures would be less dangerous than continued distension to the peritoneal coat. Similar considerations would suggest its employment in enteric fever, more especially if, as is probable, excessive peristalsis can be prevented by opium.

The specimen was shewn at the meeting.

Mr. Corner read "*Notes of a case of Acute Intestinal Obstruction complicating Utero-gestation.*"

It occurred in a woman, aged 27, who had been married only four months. Previously she had suffered from dysmenorrhœa, but had no difficulty with the bowels. It was believed that she was four months pregnant; during this period she had much sickness and retching, although able to take food. On the evening of November 20th she had eaten a very hearty supper, at a friend's house. On returning home, at 11 p.m., she was seized with great pain and violent vomiting. The bowels acted freely several times. Morphia hypodermically was given, and ice to suck. Nothing abnormal was felt in the abdomen, and the uterus was of normal size. Vomiting and pain continued, with constipation. On November 26 she was seen by Mr. McCarthy, being then in a very prostrate condition. Chloroform was administered, and the rectum, vagina, abdomen carefully explored, without anything unusual being detected. On the 27th, at 5 a.m., death took place, six days nine hours after the onset of the first attack. At the *autopsy* a constriction was found in the ileum, 5 inches above the cœcum; a small thick band of adhesion in the mesial line between the umbilicus and pubes encircled the bowel, which was completely divided at this spot. The peritoneal cavity contained a quantity of fæcal material.

The specimen was shewn at the meeting.

Mr. McCarthy said that he had seen Mr. Corner's patient for the first time the day before her death. There was an absence of abdominal expression, although vomiting had lasted for six days. The tongue was clean and moist, and the abdomen not distended. The diagnosis was between pregnancy and obstruction. There being nothing to indicate the nature of the case, he thought it prudent to wait; and looking at the nature of the case as revealed after death, he believed that had it been diagnosed, and abdominal section performed, the bowel would immediately have given way, like it had done the following day. Heroic treatment was not to be recommended after six

days. In these cases, especially in hospital practice, if seen early enough, and treated by operation, he thought there were good results. As to puncture of the intestines, he had employed this method in a gynæcological case with great relief.

Dr. Pye-Smith thought that both cases were of great interest, more especially as both specimens were before the Society. As to the first case, he first discussed the difficulty met with in diagnosis. There was nothing to be gained by the passage of a long tube up the rectum. It often coiled up, and he believed it to be anatomically impossible for it to pass beyond the second part of the rectum. Then as to the classical descriptions usually given of "pipe-clay" motions, he thought it questionable if a stricture high up could imprint its form on the fæces, for the fæces received their form in the hollow of the sacrum below; therefore, he should say that these conditions of fæces were usually due to some disease of the anus. A case of typical pipe-clay motions, due to the great tenesmus and spasm of the anus, was then related; in this case there was a stricture high up. In another case, at Guy's Hospital, in which the question of growth of the rectum was suggested by the passage of narrow fæces with a groove, was found to be due to some lumps and hæmorrhoids about the anus. On the other hand, there might be a stricture low down with no narrowing of the motions: he, therefore, considered this condition unreliable. Passing to cases of annular stricture due to malignant disease, in which there was no deposition in other organs, no peritonitis, and the progress slow, and which after death look like fibroid in structure, yet were really epithelial, but limited to the large intestine; these he thought ought to be diagnosed and treated by colotomy. Cases of this sort would often allow fæces to be passed. Bearing this out, he quoted a case of disease in the sigmoid flexure where arrangements had been made for colotomy, but at the time of operation liquid fæces were passed, consequently the operation was deferred. Death took place the next day. In these cases, as in Dr. Ryle's case, there is marked absence of ulceration in contradistinction to Mr. Corner's case. Therefore in such cases he urged operation. Fulness on one side or the other of the abdomen was really a question of gravity. The cæcum was the place where fæces collect wherever the stricture might be below. As regards Mr. Corner's case, he expressed regret as to the result. If a case reached the gangrenous stage he thought that an operation took away the last chance of recovery; and as a result, death was frequently put down to its performance. Considering the

whole question of operation, the more cases he saw the less he trusted the signs—the signs as taught so often failed. Exploratory operation had ended in failure in all his cases he had recently looked up—of volvulus, and of constriction by band—although in the latter the diagnosis had been made before the operation. A more loose method of diagnosis than that usually taught he considered useful, and would classify cases under several headings:—(1). Acute obstruction in which (*a*) operation is followed by a good result, as in cases of hernia; (*b*), treatment by opium and starvation is carried out (some of these recover). (2). Chronic obstruction—like stricture of rectum, as growth, &c.—treated by colotomy. (3). Obstruction chronic, due to impaction of fæces—treated for constipation by enemata; this included also that due to gall-stones. He agreed with all Dr. Ryle had said as to puncture. He had performed the operation once, to relieve excessive distension, and found that peristalsis was excited. The patient passed some fæces, and ultimately recovered. He thought that it might be performed with greater freedom, and recommended frequent puncture. The needle, however, should not be allowed to remain in any length of time.

Dr. Dundas Grant gave his experience of two cases of cancer of the rectum low down in which he had used this method of treatment by puncture with a very fine aspirator, and with great relief to the patients. He asked Dr. Ryle if he had passed the whole hand into the rectum for the purpose of diagnosis. The disease was often to be detected in this way when it was not to be felt by the finger. Typhlitis being sometimes accompanied with fæcal vomiting, and liable to be mistaken for acute intestinal obstruction; he enquired as to what degree of weight should be attached to this stercoraceous vomiting, and related the case of a young lady bearing upon this point.

The time of the meeting having expired, it was proposed by Mr. Corner and seconded by Dr. Pye-Smith, that the meeting be prolonged for fifteen minutes.

Dr. Galabin considered the question of puncture of great interest, and adverted to the criticism by the *Lancet* on the statements made in his "Manual" as regards this method of treatment in puerperal peritonitis. He had given them on the authority of Dr. Braxton Hicks. Puerperal peritonitis being so fatal, the relief given could only be temporary. He had performed the operation in two cases of this kind. He had seen one case of intestinal obstruction turn out favourably, like

that of Dr. Pye-Smith's. There was an increase of peristalsis, but little flatus passed. There was a motion in 24 hours, followed by recovery. He thought that punctures might be used in cases of extreme distension, where there was great trouble about to be experienced in abdominal section. The finest tubes only should be used. He had employed fine puncture for the relief of great distension of intestines, which had escaped from the abdomen after ovariectomy; a small drop of fæces was noticed at the site of each puncture. One case of acute intestinal obstruction with pregnancy at the sixth month had come under his notice. It occurred after a dose of "Eno's Fruit Salt." The patient was moribund when seen, so nothing was done. At the autopsy a volvulus of the small intestines was found, and it took one hour to disentangle the coils.

Mr. Symonds discussed the increasing difficulty of diagnosis in intestinal obstruction, and related several cases he had had under his care. He always recommended an exploratory operation in these cases. The success he had met with was certainly encouraging. The use of large enemata, he thought, did not prove the position of the growth. In cases like that of Mr. Corner's, Nélaton's operation was useful as a method of relief short of abdominal section.

Dr. L. E. Shaw had seen Dr. Ryle's case during the second attack, and thought the case an admirable one for operation. He believed that puncture might always be employed in the first place—before the performance of operations on cases for the removal of growth—the method appeared to be so innocuous.

Dr. Pitt related a case of puncture of intestines in a man, in whom the attack had come on acutely with constant pain; the abdomen was distended on the right side. There was thought to be a loop in the transverse colon, so right colotomy was suggested. However the abdomen was punctured in many places, but no gas was let out; colotomy was then performed. At the post-mortem examination the vermiform appendix was found united to the liver; beneath this the ascending colon had become strangulated. In the majority of cases he believed the colon was not full of gas, but fæces, as in the case just mentioned. Increased peristalsis of the colon might have released the ascending colon. A very valuable method of treatment for the relief of symptoms in intestinal obstruction he had found, was to wash out the stomach. So again in enteric fever, might not the contact of micro-organisms with

the food form gas? In experiments he had made with puncture of the intestines on the dead subject, he found it was uncertain whether the colon or small intestines were punctured.

The President thought Dr. Ryle's case a typical one for colotomy, and regretted that the patient could not be persuaded to undergo the operation. In chronic obstruction, where the position of the disease was a matter of conjecture, he always advised left-side colotomy, and he related two cases in which patients were relieved in this way. In one case there had been symptoms of chronic disease and complete obstruction for thirteen days. He colotomized on the left side, and found the opening was below the stricture; passing in his finger he felt the disease at the splenic flexure, then turned over the patient and operated on the right side. This patient was alive nearly three years after the operation. As illustrating the use of puncturing, he referred to a case of Mr. Forster's, related in the "Guy's Hospital Reports for 1868," where the patient lived 88 days after complete obstruction.

Dr. Ryle and **Mr. Corner** then replied, and the meeting adjourned.

A Meeting of the Hunterian Society was held at the London Institution, on Wednesday, April 11th. Mr. R. CLEMENT LUCAS, President, in the Chair.

Mr. F. W. DEVEREUX LONG was admitted a member of the Society.

Mr. A. LINGARD, Mr. L. A. DUNN, Dr. R. D. BATTEN, Dr. G. A. CARPENTER, Mr. J. H. TARGETT, Mr. F. F. BURGHARD, Mr. H. H. WRIGHT, Dr. A. W. WEBB, Mr. H. G. READ, Mr. ROBERT BRUCE, and Dr. J. R. GABE were elected.

Dr. A. T. Davies shewed "*A case of incipient Paralysis Agitans*" in a man, aged 46. There were rhythmical movements of the right arm and hand, increased by voluntary movement of the limb. After walking a short distance the foot became cramped and the toes bent under it.

Dr. DAVIES' observations upon the case and the discussion of it were postponed to the next meeting.

Dr. Dundas Grant then read his paper on “*Tinnitus Aurium.*”

After pointing out the interest and importance of the subject, Dr. Grant expressed the opinion that it had been obscured by the pedantic reasonings brought to bear on it, instead of being treated in a common sense way. There were many descriptions of noises, but few real varieties. Noises might be classified as *elaborated* and *simple*. *Elaborated* noises were such as voices or music, and might have no origin in the auditory apparatus, but only in the diseased mind. They might be termed “*auditory hallucinations.*” On the other hand, they might originate as simple noises from ear disease, and in case of a neurotic individual be misinterpreted as voices. To this class of case the term “auditory illusions” was applicable. A case under Dr. Grant’s observation commenced with chronic suppurative catarrh of the middle ear with simple singing noises. Later on she mistook the sound for unintelligible voices, but at last she interpreted them as distinct voices ordering her to perform insane acts, which necessitated her removal to an asylum. *Simple* sounds might be classified as *continuous* and *pulsating*. Continuous sounds when *high-pitched* were generally due to middle-ear catarrh of some sort. The high-pitch was probably due to the “proper tone” of the auditory passages. They were sometimes explosive, as when air suddenly entered the tympanum, or rattling, as when air in so doing passed through contained fluid. When *low-pitched* the sounds were usually vascular in origin. Humming sounds often resulted from anæmia; rushing sounds from plethora. These noises might occur apart from any ear disease, and were then to be ascribed to irritability of the auditory nerve, which was produced by exhaustion from various causes. *Pulsating* noises were arterial. The pulsatile character was often only recognised by the patient when his attention was specially directed to it. If arising in the middle ear, it could be checked by pressure on the carotid artery; and if in the labyrinth, by pressure on the

vertebrals, as could be effected in the sub-occipital triangle. Either may be due to acute inflammatory conditions, but also very commonly to vaso-motor disturbance. Digestive derangement, from the well-known influence of the alimentary system on the cerebral circulation, often initiated the vaso-motor abnormality; but the various forms of nervousness, however produced, were frequently the sole cause. Chronic Bright's disease and the præ-albuminuric increase in pulse tension were also etiological factors. The most typical form of pulsating tinnitus was that resulting from the action of quinine or salicin when there was usually diminution of hearing by "bone-conduction" and pulsating noises relieved by pressure on the vertebral arteries. Several other exceptional forms of tinnitus were described, and as that due to intracranial aneurism. In investigating such cases it was necessary to examine into the condition of the auditory apparatus—testing the hearing for obstructive or nerve-deafness, looking to the meatus for concretions of wax or other obstructions, to the membrane for the usual evidence of disease, to the patency of the Eustachian tubes, the effects of inflation, the freedom of the pharynx, and particularly of the meatuses of the nose—as we were not justified in ascribing tinnitus to other causes until auditory disease was excluded. As an illustration, a case of severe tinnitus was described, in which temporary relief was first obtained when dilating tubes were passed through the nasal meatus, and lasting relief only when a portion of the deflected nasal septum was removed by means of a trephine. The *treatment* depended on the cause. Aural disease had to be treated *secundem artem*, anæmia or plethora, according to the usual methods. The condition of the nose and naso-pharynx required special attention, and in many cases the use of an alkaline nasal wash and an antiseptic ointment to the interior of the meatus produced gratifying results, by diminishing the obstructive swelling of the mucous membrane. In more intractable cases caustics, the galvano-cautery or surgical implements were

required. In cases where "nerve-deafness" was present, the hypodermic use of pilo-carpine was most valuable. In the absence of ear-disease and the presence of nerve irritation, rest was of the utmost value, with judicious nourishment and the most sparing use of sedatives. In arterial congestion bromide of potassium or, where an acid was indicated, hydrobromic acid was indicated. Pressure on the vertebral arteries gave temporary, and in a few cases even lasting, relief. Occasionally the noise ceased for a time after blowing into the meatus. In old age and in cases of increased arterial tension, the adoption of milk diet was often followed by relief. Dr. Grant had found galvanism of little service, and he alluded to other methods of giving relief. In conclusion, he dwelt on the necessity of studying and treating tinnitus aurium from the point of view of a general practitioner as much as from that of a specialist.

Mr. Corner said that in some cases tinnitus in elderly persons was connected with natural changes, and tended to become mitigated or pass off. He referred also to cases in neurotic subjects which were relieved by regulation of diet or by small doses of morphia (gr. $\frac{1}{32}$). The effect of compression of the arteries was valuable diagnostically, distinguishing vascular and nerve cases. He had failed to give any permanent relief to cases due to displacement of the septum narium by means of bougies alone.

Mr. Rivington observed that the question of the treatment of tinnitus was not solved. There was a residuum of cases dependent upon derangements of the internal ear which were most unsatisfactory to deal with. He referred to Mr. Hinton's treatment of some cases by incision of the membrana tympani and repeated washing out of the cavity; also to division of the intrinsic muscles of the ear. He had suggested also puncture of the membrane of the fenestra rotunda, with the view of relieving tension in the fluids of the internal ear. He agreed with Mr. Corner as to the temporary nature of the relief afforded by dilatation of the nostrils in cases of displaced septum. He expressed a hope that Dr. Grant would shew some of the instruments he used at another meeting of the Society.

Dr. Hingston Fox mentioned a case in which tinnitus aurium of twenty years' duration had been complicated for ten years with symptoms of Menière's disease.

Dr. Gilbert asked for an explanation of the causation of tinnitus in which the symptom was attributable to disturbances of some distant organ, as the stomach or liver.

In reply, **Dr. Grant** was glad Mr. Corner coincided with him in his opinion concerning the advantage of a revised dietary. He agreed that dilatation of the meatus did not lead to permanent permeability in severe cases, but found operation satisfactory. The operations mentioned by Mr. Rivington were found to lead to injurious results, and were now abandoned by aurists. The mechanical trephine and the nasal saw were the best instruments for removing solid obstruction in the nasal meatus. Menière's disease preceded by *tinnitus* for thirty years was probably in reality chronic middle-ear catarrh extending by continuity to the internal ear. Apart from local treatment, the hypodermic use of pilocarpine and the internal administration of iodide of potassium were the likeliest means of giving relief. The connection of the liver and stomach with the ear might be accounted for by the connection between the vagus nerve and the sympathetic fibres on the vertebral artery. A most important function of the specialist in such cases was to eliminate aural disease.

Mr. Hovell then read portions of his paper on "*Therapeutic Reminiscences*," of which the following is an abstract:—

The therapeutic reminiscences of fifty years recall the picture of syphilitic patients sitting in rows with spittoons in their hands filled to the extent of a pint a day, the remedy being almost as bad as the disease. The salivation which should have been, like a mile-stone, a mark of the progress, became as it were the goal of the proceeding. Then followed the practice of giving no mercury at all, and the compromise of iodide of potassium. Now mercury is recognised as the true remedy of syphilis, but it must be begun sufficiently early and continued sufficiently long, and given so as to neutralise the poison, and not destroy the constitution of the patient. That vaccination properly performed is a prophylactic against the ravages of

small-pox there can be no doubt, but the efficiency lies in the lymph of the vaccine vesicle, and not in the admixture of pus which takes place after the formation of the areola. Jenner recognised the value of Bryce's test, which effectually prevents this, and practised it. The practice of the old schools of Physicians was well-nigh comprehended in this, "I physics, bleeds and sweats 'em;" but the advance of pathology has superseded this active practice by the do-nothing system of watching the periodicity of disease. It is the same vibration from one extreme of opinion to the other. Sir Thos. Watson shewed that although "the periodicity" of variola could not be altered, it might be beneficially influenced by the internal administration of acidulated sulphate of magnesia (combined with chlorate of potash). When we call to mind the hide-bound state of the patient, and the observation of Mr. Curling, that ulceration of the duodenum frequently attends severe burns, it needs but little reflection to see how usefully the congestion of the mucous membrane of the alimentary canal may be relieved by this means. This is equally true of scarlatina, as regards the calomel purge of Dr. Hood. The bowels, the kidneys, the skin, the lungs, are the four great eliminators of effete matter, and should all be acted on in their turn. Most diseases represent either a superabundance of effete matter or an obstructive difficulty in getting rid of it. Treatment is at once divided into external and internal. In addition to the internal treatment of Sir Thos. Watson, I have for many years washed my small-pox patients twice a day with a weak solution of permanganate of potash, and anointed afterwards with carbolic oil, 1 to 40, thereby affording great personal comfort, and deodorising and disinfecting the patient. In scarlatina then flush the kidneys as well as act upon the bowels; sponge the skin or use the hydropathic packing. I do not despise the specific biniodide of mercury, if it can be brought to bear. In rubeola the purgative is, of course, contra-indicated. The skin must be relied on as the chief eliminator. In rheumatism

help the natural action of the skin by artificial activity of the kidneys. Dr. Quain would say, relieve the *vis-a-tergo* of the heart by a few leeches. In pneumonia I greatly rely upon the citrate of potash with nitric ether to act on the bowels, liver and kidneys. On the same principle that Guthrie advocated bleeding in traumatic pneumonia. Superior to the elimination of poison is its neutralization when possible. In an outbreak of typhoid fever at the London Orphan Asylum, at Watford, in November, 1886, I suggested to Dr. Brett to administer permanganate of potash in enemata of rice or barley-water, in cases where diarrhœa was most troublesome and most offensive, with the result of not only lessening the frequency of the dejectum, but rendering them quite inodorous. With this result *per rectum*, why not administer the same remedy by the mouth, or chloride of sodium, as some have done? Surely the neutralization of the poison will tend to shorten and modify "the periodicity of the disease;" but by no means neglect similar external treatment, and to neutralize the poison eliminated by the skin, &c., as well as by the bowels. In diphtheria the undoubted elimination of the poison by the bowels by means of a calomel purge, is in vain if the patient be unable to bear it. Woe to the patient whose strength is not upheld from the first, by the free use of stimulants, as well as of nourishment. In no class of cases is the unloading system of more value than in the sanguineous congestion which causes the orthopnœa, described by Dr. Ormerod as constituting the tragedies of our hospitals; and the same principle applies to hæmoptysis, hæmatemesis, and some forms of uterine hæmorrhage. Pathological facts are of no practical value unless they result in some definite therapeutic indication. It is as vain to treat the paraplegia caused by a clot on the spinal cord, the result of an accident, with mercury, as to attempt to cure syphilis without it.

Mr. Corner said that Mr. Hovell's observations on the subject of vaccination were most important. Bryce's test of

the efficiency of vaccination was very valuable. Inoculation from vesicles on the eighth day were liable to be unsatisfactory from insufficient care being taken to make use of clear vesicles only. He thought also that vaccination cases should be seen through, and not on the eighth day only, after which they often got bad arms from want of attention, and were taken to other medical men. On this account he felt some sympathy with the anti-vaccinators. He thought washing out the bowel by an antiseptic solution, as suggested, was of much service.

Mr. Tatham said that he always was careful to vaccinate from clear lymph. In 3000 cases he had had no failures. In one case three inoculations had failed, but inoculation three months later had been successful. Bad arms after vaccination he had found to be due to aniline dyes in the children's frocks. In answer to the President, he said that he always took the lymph on the eighth day. He preferred points to tubes, and changed them two or three times, and thoroughly dried them.

Mr. Hovell, in reply, congratulated Mr. Tatham on his successful vaccination; and referring to the subject of typhoid fever, he mentioned Dr. Collie's statement, that the secretions of the patients were infective, and the necessity of washing them.

The meeting then adjourned.

A Meeting of the Hunterian Society was held at the London Institution, on Wednesday, April 25th. Mr. R. CLEMENT LUCAS, President, in the Chair.

Dr. A. E. GARROD was present as a visitor.

Dr. G. A. CARPENTER and Dr. A. W. WEBB were admitted members.

Sir JAS. PAGET was proposed as an Honorary member.

Mr. PERCY REYNOLDS, Mr. FRANK HEWKLEY and Mr. THOMAS CAREY BARLOW were proposed as ordinary members.

Dr. ALEXANDER BURGER and Dr. J. L. HEWER were elected members.

Dr. Dundas Grant shewed "*A case of Intrinsic Epithelioma of the Larynx*," which he had brought before the Society on April 13, 1887 (see Report, Session 1887-88, p. 42). At present respiration through the larynx cannot be carried on beyond a

few moments, the voice is nearly abolished, and there is now commencing pain in swallowing. Pains radiating up the side of the neck and down to the axillæ occur frequently. One gland on the left side of the neck is much enlarged and hardened, and the glands in the axillæ are perceptibly larger than normal. The spreading out of thyroid cartilage is distinctly increased. Laryngoscopically the growth is seen to have infiltrated the left ventricular band, and to have extended round the *interior* of the larynx, so as almost to occlude it, and further fix the arytenoid cartilages. It has not extended upwards into the pharynx. Tracheotomy was performed on July 26th, 1886, when the disease was progressing with obvious rapidity, and the obstruction to respiration was threatening life. The immediate improvement in comfort, and the comparative well-being of the patient, added to the retarded progress of the disease since the operation, gave evidence of the unquestionable benefit effected by tracheotomy, and confirm the opinion of Fauvel, whose statistics shewed an average duration of four years in cases of epithelioma of the larynx treated by tracheotomy, against one of one year and eleven months in those left to the *vis medicatrix naturæ*.

Dr. Dundas Grant also shewed the "*Nasal Trephine*," referred to in his paper on "*Tinnitus Aurium*." It was worked by means of a dentist's engine, and has been proved by Dr. Grant (who has used it in a very large number of cases) to be capable of removing cartilaginous or bony outgrowths and deviating portions of the nasal septum almost instantaneously, and with little or no pain (especially if cocaine be employed).

Dr. Dundas Grant then brought forward "*A case of very large Sublingual Calculus*." It was about the size of a date-stone and resembled a ranula, but was less transparent, and to touch was quite hard. The calcareous nature of the nodule was determined by means of a sewing-needle. The patient com-

plained of the swelling, and of pain going up to her ear and down the left side of the neck. The lump began to form four years ago, after the loss of several teeth, and a soreness of the mouth, apparently produced by hydrargyris.

Dr. Geo. A. Carpenter shewed (for the President) "*A case of Congenital absence of either Iris*" in a child three years of age. The child had marked nystagmus. The fundus oculi was perfectly healthy. Associated with this deformity, there had been talipes equino-varus, dating from birth, for which he had been operated upon. His mother had internal strabismus on the left side, nystagmus, complete absence of the iris, together with posterior polar cataract; the fundus oculi being normal. Her occupation was that of a shirt-maker, and she was able to do fine work. The brother and sister of the patient were quite healthy, and there was no history of a similar deformity on either the maternal or paternal side. The families had been free from nervous complaints, and the parents considered themselves healthy people.

The President remarked upon the two chief points of interest in the case:—1. The hereditary nature of the disease; and 2. The association of the deformities. He had removed a wedge from both feet with good results.

Dr. Stowers exhibited "*A rare case of Tropho-neurosis*," characterised by chronic ulceration and atrophy of the nails, and nail matrices of the hands, and feet in the person of a female, aged 67 years, associated with "glossy skin." The disease commenced 37 years since, within a fortnight of her second confinement, and was at first symmetrical. She had never had acute gout, although several of the phalangeal joints of the hands were swollen and had been tender. Her father is stated to have suffered gouty manifestations since his early youth.

Dr. A. T. Davies read "*Notes of a case of commencing Paralysis Agitans*" (Parkinson's Disease).

(The patient was again shewn at the meeting).

The case came under his notice about eighteen months ago, and had been more or less continuously under his observation. As it was always of interest to see the commencement of any disease, he thought that he might venture to bring the case before the Society. It was not a very common disease. Sixteen cases in ten years were recorded at Guy's Hospital.

Henry B., aged 46, dog-collar maker. He had gonorrhœa at 18 years of age, but denies syphilis. Has never been a heavy drinker. His family is good. The patient attributes his present illness to a severe mental shock sustained four years ago, when he lost his wife and four children in nine months. He states that about four years ago he first noticed that his right hand began to shake, and that this unsteadiness gradually affected his whole arm, which was increased by exertion; he says that whilst awake, the arm is in constant movement, which ceases when he is asleep. Has noted gradual loss of power in the arm for two years; never had any pain. The patient is well nourished, aspect somewhat vacant and speech rather jerky. There are constant more or less rhythmical tremors of the arm, of small amplitude. The fingers are partially flexed, but the interossei are unaffected, the hand is alternately flexed and extended on the forearm, and the forearm on the arm. The movements are increased on exertion, and continue when the patient is at rest, but the amplitude of the muscle movements are small. There is loss of power in all the muscles of the shoulder and arm, and the grasp of the right hand is less than that of the left. The thumb and index finger are extended, but there is no "cigarette" action. The patient is quite unable to control the oscillatory movements by his will, but when he places the right elbow on his knee and holds the right arm with his left, the movements are lessened.

There is some glossiness of the skin of extensor surface of hand. In the latter end of 1887, the patient complained of difficulty in walking, owing to the muscles of the calf becoming rigid, and causing his toes to turn under. Although the patient does not exhibit a tendency to be constantly trying to overtake his own centre of gravity, yet he has a tendency to fall backwards on rising from his seat, or on gently pulling his coat behind when the patient is standing up, he has a tendency to fall backwards. The contractility of the muscles of the hand is much impaired and rapidly exhausted, as shewn by the fact that he is unable to open and close it rapidly more than half a dozen times, and the dynamometer employed in these cases shews that there is decided diminution in strength. On listening with a stethoscope over the triceps muscle, a distinct sound is heard with each contraction. The electro-sensibility in the right arm is diminished, but to Faradism there is no difference in the irritability, as compared with left, except perhaps in the right triceps. To galvanism, the reactions are absolutely normal. The tendon reflexes of the right arm are natural. The fundi are normal. Sensations of heat are absent.

When he (Dr. Davies) first saw him, the arm was alone affected; the disease, however, had gradually spread upwards, so as to affect the muscles of the right side of the neck, and downwards, so as to affect the right leg. Owing to the contractions of his toes, caused by the sudden attacks of rigidity of the muscles of the calf of the leg, corns had appeared on the extensor surface of the toes. He thought that the case might fairly be considered as one of commencing Paralysis Agitans. The manner in which the disease, beginning in the hand, and gradually spreading upwards, so as to involve the neck, and downwards to the right leg, was characteristic. According to Marshall, this would be a hemiplegic form. The observation of Mr. Parkinson, who, in 1817, first described the "shaking-palsy," that "the movements occur in parts not in action, and even when supported," was well illustrated by this case.

Charcot attributed sudden shock or terror as one of the chief causes of this disease, and this appeared to be the agent in this case. As to its *pathology*, it was well known, that no definite lesion had been found in the brain or spinal cord characteristic of this disease. In six cases examined by Charcot, three presented perfectly healthy appearance of the nervous centres, and the other three shewed merely slight senile changes. In a case recorded by Dr. Dowse, there was found trophic granular pigmented fuscous degeneration of the nerve cells of the anterior pyramids at their decussation, olivary body, nucleus of ninth nerve, laminae and corpus dentatum of the cerebellum and in the anterior cornua of spinal cord. Healn found cortical sclerosis of the right lateral columns of the spinal cord with miliary and colloid degeneration, and thickening also of the minute vessels. Miliary changes in the whole matter of the corpus striatum and hemispheres, were also found. These observations were confirmed by Dr. Cayley. Gowers, in his "Diseases of the Nervous System," states that "Dr. Hughlings Jackson locates the disease in the cerebellum, because in some rare cases of cerebellar disease the interosseal position of the hands has been conspicuous. The same posture of hand is seen, however, in tetany, post hemiplegic disorder of movement, and in epileptic fit, where the cerebellum is not involved. It is, however, more than probable that the tremors are cortical in origin." Most of the cases were beyond therapeutic *treatment*; recoveries had, however, been recorded under the action of subcarbonate of iron, chlorate of barium, valerianate of zinc, subcutaneous injections of arsenic, a method not mentioned in text books, was nerve stretching. In a discussion which took place at the Berlin Medical Society, in 1884, Westphal said that he knew of three cases which had been treated in this way. In the first patient, the trouble reappeared in the first few days after operation, though temporarily relieved; in the second, the principal result was a paralysis of the parts supplied by the musculo-spiral nerve; and in the third case, the patient died

six days after the operation from suppurative meningitis. Morton had recorded a case, in the *New York Medical Record*, where stretching of the sciatic nerve was followed by improvement.

Mr. Fendick asked Dr. Davies whether he had used galvanism for his patient, and related a somewhat similar case in which this had afforded the best form of treatment.

Dr. Stephen Mackenzie thought the case differed from ordinary cases of paralysis agitans in that the unilateral condition persisted; usually the opposite side soon became affected. The tremors were increased by movement, not suspended. The expression of this patient was not fixed and stolid—a sign so characteristic. Dr. Hughlings Jackson had insisted upon rigidity as the essential feature of the disease; the contractions were tonic, and due to some cerebellar condition; unilateral symptoms were more those of cerebral or cortical lesions. Tripping in walking might help to localize the disease. He considered exceptional cases of the greatest value.

Dr. G. N. Pitt considered unilateral paralysis an uncommon symptom of this disease; the stolid expression also was absent. As to the question of stretching the nerves, a case had been recorded in which the movements of the muscles were rendered much worse; the last state of the case being worse than the first. He pointed out the inadvisability of stretching in cases of tremor of groups of nerves.

In reply, **Dr. Davies** said that he had tried and found both dynamic and static electricity useless in his case.

Dr. Stephen Mackenzie read a paper “*On the Skin Affections connected with Rheumatism.*”

After a passing notice of *sudamina* and *miliaria*, so often seen in connection with rheumatic fever, but only indirectly connected with it through the profuse sweating characteristic of the disease. He then dealt with *urticaria*, showing that, whilst not numerically frequent, there appeared to be some link connecting it with rheumatism, and mentioned a recorded case in which unilateral urticaria and chorea occurred as sequels to

rheumatic fever. A few cases of *pemphigus* have been observed in connection with rheumatism; as also have cases of *exfoliative dermatitis*. Coming to the group of the erythemata, firmer ground was approached. *Erythema circinatum* was frequently noticed to concur with acute rheumatism. He had seen *erythema papulatum* with rheumatic symptoms. And in one case of this affection, a murmur resulted, presumably due to endocarditis. With regard to *erythema nodosum*, he had elsewhere brought forward strong evidence, he thought, that it frequently co-existed with acute rheumatism, which it might precede or follow; that it might give rise to endocarditis when no joint symptoms were present; and, further, he thought it probable that in some cases it might be the sole expression of rheumatism. He finally dealt with *purpura* in connection with rheumatism. He thought Schoönlein's original description of peliosis rheumatica had been much misread, and that great confusion existed on the subject; he, therefore, discarded the term. He narrated some cases of purpura occurring with acute rheumatism, occurring during convalescence from acute rheumatism, and in persons who had previously suffered from rheumatism, as well as cases of purpura of great similarity, but without unequivocal arthritis. The general correspondence of the symptoms in the last group with those of the undoubtedly rheumatic group, was, in his opinion, sufficient to justify their being regarded as rheumatic.

On the motion of Mr. Tatham, seconded by Mr. Appleford, the time of the meeting was prolonged a quarter of an hour.

Dr. Pitt understood Dr. Mackenzie to distinguish a particular class of purpura associated with rheumatism—*i.e.*, accompanied by itching and coming out upon the extremities. He did not believe that the arthritic pain was of sufficient evidence—it was of less value than in other diseases. These cases of purpura were hæmorrhages into the skin, and could not be classed as erythemata. He then discussed the association of purpura with endocarditis. There were old cases of heart disease with no other evidence of blood deterioration in which this was found. He had made post mortem examinations on

cases of purpura, in which the question was raised whether they might not be associated with rheumatism, or cases of simple purpura; in one case the hæmorrhagic purpura was preceded by erythema nodosum; in another, there was hæmorrhage alone; and in a third case, under the late Dr. Mahomed, arthritic pain was absent.

Mr. Fendick asked Dr. Mackenzie what was the dose of turpentine he recommended in these cases.

Dr. A. Garrod alluded to Scheby-Buch's opinion as to the existence of joint lesion in any form of hæmorrhagic disease, and asked Dr. Mackenzie whether he regarded the arthritic pains in such cases as these—*e.g.*, in erythema nodosum, as really rheumatic. He then referred to cases which had been recorded, and accompanied by rheumatic pains in the joints. Was this joint-pain in erythema, &c., an indication of true rheumatism? He believed these patients were more cachectic than those with true rheumatism; cod liver oil improved them, whereas rheumatic remedies failed. Again, cardiac lesions were rare in these hæmorrhagic affections. These cases—*e.g.*, where there were raised purpuric patches, he believed were really arthritis with purpura rather than true rheumatism.

Dr. Stephen Mackenzie, in replying, said he had left out those cases of purpura with ulcerative endocarditis and failing heart disease; they were quite mechanical. As to post-mortem evidence in the cases brought forward by him, and associated with rheumatic fever, there was really nothing to show. They must be interpreted on etiological or clinical grounds. He usually prescribed from 10—30 m doses of turpentine. He then discussed the opinion held by Scheby-Buch as to the connection of pain in the joints with purpura, and questioned whether there was a disease, Purpura. His own opinion was that there was not, but that purpura must be looked up only as a symptom. This question he had fully discussed in a paper read before the British Medical Association in 1883. If his views were admitted, concerning this form of purpura, it should be taken out and placed under rheumatism.

The meeting then adjourned.

A Special General Meeting of the Hunterian Society was held at the London Institution, on Wednesday, October 10th (previous to the ordinary Meeting), to consider the recommendation of the Council that the term Fellow be substituted for Member in the Society's Laws. Mr. R. CLEMENT LUCAS, President, in the Chair.

Mr. TATHAM proposed that the alteration of the term Member to Fellow be adopted. This was seconded by Dr. GILBERT, and supported by Dr. BARNES, and carried unanimously.

An ordinary Meeting of the Hunterian Society was held at the London Institution, on Wednesday, October 10th. Mr. R. CLEMENT LUCAS, President, in the Chair.

Dr. McKELVIE was present as a visitor.

Dr. LANGTON HEWER, Messrs. ROBERT BRUCE and HENRY GEO. READ were admitted Fellows of the Society.

Sir JOSEPH LISTER, Bart., and Sir WM. JENNER, Bart., nominated by the Council, were proposed as Honorary Fellows.

Dr. J. H. BARNARD, M.R.C.S. Eng., Rue Washington, Paris, was proposed as a corresponding Fellow.

Messrs. ROLAND F. COX and ARTHUR EVERSHED were proposed as ordinary Fellows.

The President then delivered a short address:—

GENTLEMEN—It has been usual for the President of the Society to address a few words of welcome to the members on their re-assembling for the first time after the recess. I have now the honour of addressing you for the first time as Fellows of the Hunterian Society; and may I be allowed to express a hope that this higher sounding title may be a token of the higher sphere of usefulness to which it is hoped this Society will attain in the future; that the great and good work so long maintained by this Society may not only continue, but be more widely extended than ever heretofore.

It must be present to the minds of every one of you that the Society during the year has past through a serious crisis. A notice from the Managers of the Institution, which for so many years has kindly given us accommodation for our meetings and our library, that it would be necessary to remove our library, was taken to mean that we might have to find room for it outside the building; and face to face with this serious difficulty, the Council at first thought it might be wise to dispose of the library altogether. But it was found that the Managers of the London Institution only desired to move us to a more convenient room, where we might extend our library, and make it more useful to the Fellows. We are happy too, not only in retaining our library, but in having now a room entirely devoted to the services of the Hunterian Library. The Council now hope greatly to increase the library, and steps have already been taken to obtain the various Hospital Reports and the Transactions of the various Societies.

The life of a society is like the life of an individual, and it is necessary continually to nourish and replenish what is bad by time and age. There are generations in societies, like the generations of families, but the society has this advantage, that having a wider foundation, it should be more lasting. This thought brings to my mind the losses which this Society has sustained during the present year. Two of our most distinguished past Presidents have passed away.

The name of THOMAS BLIZARD CURLING recalls the very foundation of the Society, in 1819, when his uncle, Sir W. Blizard, was the first President. Mr. Curling at an early age became attached to the London Hospital, and though his first appointment seems to have excited some jealousy, he fully justified the choice of the Governors. His works on Tetanus, Diseases of the Testis, and Diseases of the Rectum are full of close observations, and he seems to have been the first to describe, in 1850, that peculiar form of cretinism due to the absence of the

thyroid gland, afterwards described by Hilton Fagge as Sporadic Cretinism, and by Gull and Ord as Myxœdema. Mr. Curling was a straightforward and honest Surgeon, imbued with the true Hunterian spirit of original observation. He served on the Council of this Society in 1836—37, was Vice-President in 1840—41, Orator in 1843, and President as far back as 1855. He was a Fellow of the Royal Society, and died full of years and honour.

Mr. DE BERDT HOVELL has long been a familiar figure in this Society, where his kind and dignified bearing and fluid speech will be sadly missed. Mr. Hovell was present at our last Council Meeting, and showed the interest of a youthful old age in the changes that were being proposed by the Council. I may say that he heartily concurred in every one of them. Mr. Hovell was an authority on functional disorders, and his objections to the term hysteria will be remembered by the Society. He was Vice-President in 1866—7, Orator in 1870, President in 1871, and a Trustee during the last seven years.

These sad losses that we so much mourn must be replaced by the labours of younger Fellows; and with the influx of new Fellows we now anticipate, it is not difficult to predict that the future fame of the Society will be greater than it has ever been in the past.

Dr. Barnes then read a paper on “*The recent Triumphs of Surgery.*”

No one observant of current medical history can fail to be struck with the bold and successful progress of Surgery within the last few years. It may seem presumptuous on my part to make it the subject of an address to the Hunterian Society. I should offer an apology for my rashness, were it not that an apology is really due from your zealous Secretary, Dr. Charleswood Turner, who imposed upon me the duty of addressing you.

I will, therefore, unsheath the knife, and plunge at once *in medias res*, meaning the skull, the thorax and the abdomen.

The field of the Surgeon had long been nearly limited to the limbs and external organs. He might remove the testicle ; but he was forbidden to touch a far more serious and frequent source of danger, the ovary. He dealt with accidental injuries more than with disease. The three great centres containing the organs which rule the processes essential to life were the almost exclusive territory of the Physician. And here he worked, seeking by various means to elicit, through the protecting enclosures of the skull, the walls of the thorax, and the abdomen, what was going on within. Three only of his senses, hearing, transmitted touch, smell perhaps, were mainly relied upon ; sight and taste gave but little help. Of course the faculty of insight and interpretation was brought to a high degree of perfection by the gradual evolution of physiological and pathological knowledge. Still, the limits of actual observation imposed upon him, made his interpretations more or less subjective and conjectural.

Pathology is mainly studied and verified by the Physician in the dead-house : that is, he sees the effects of disease, the issues that have proved incompatible with life. He may have keenly watched and tracked the morbid process during life, by the aid of stethoscope, laryngoscope, and other imperfect means of projecting his senses into the dark cavities of the body ; he may have carefully analysed the excreta, the messengers sent out to him from the suffering organs. But his knowledge of the actual conditions is necessarily imperfect. We now know that countless lives might have been saved, had the Physician himself learned, or permitted the Surgeon to learn, the true conditions, by penetrating that outer barrier which concealed the diseased organs from actual inspection and direct treatment.

The Surgeon, his handcuffs cast away, has the advantage of inspecting the processes of disease during their progress ; and

thus he often dispenses with the too late teaching of the dead-house, by arresting the disease during its progress. The Surgeon, by opening the way to direct inspection of the internal organs, reveals in the most effective way the very foundation of physiology.

Henceforth, for a time at least, surgery must be the main guide and master of pathology and practical medicine. It serves to a great extent the uses of vivisection. It is, indeed, the boldest and most enlightening form of vivisection. Instructive as vivisection of the lower animal is, abounding as is the knowledge, and beneficial as are the applications of this knowledge to the relief of human suffering, we cannot fail to recognise that the direct observation of the organs in the living man is of more crucial value. In pursuing an internal disease by vivisection, we not only carry out the immediate object of the particular operation, the relief of the disease, but we strengthen our faith in, and extend the means of diagnosis for other cases; but we can hardly fail to detect other collateral conditions, anatomical or physiological, which will enlarge our general knowledge.

A word may be said, not of apology or in justification, about what is called exploratory surgery. In the presence of grave disease and symptoms threatening life, uncertainty in diagnosis is not an absolute reason against pursuing diagnosis to the point of directly inspecting the suspected seat of disease. This argument applies with especial force—that is, so far as my own experience goes, to laparotomy. Simple laparotomy involves little danger; and it opens up at once the way to precise diagnosis, with the great probability of relief or cure. Where is the harm, if on opening the abdomen we find a form of disease differing from that expected, when the same operation is the right thing to do in either case? The best writ “*de ventre inspiciendo*” is served by the Surgeon, when he performs an exploratory incision. Sir George Macleod, in his Address

on Surgery, at the recent meeting of the British Medical Association, plainly says, "Laparotomy is justifiably employed even for exploratory purposes." In this connection, it is but justice to the memory of Frederic Bird to award the honour due to the initiation in this application of surgery.

In not a few of the recent triumphs of surgery, the Physician and the Surgeon have so combined their knowledge and their action, the one helping and supplementing the other, as to realise the highest ideal of the healer.

I cannot withhold the expression, howsoever inadequate, of my admiration of the noble and faithful alliances, for the good of humanity, of the highest medical and surgical faculties which we mark in the working together of such men as Gowers, Ferrier, Hughlings Jackson, Horsley, Bland Sutton, Godlee.

How shall we define the boundary between surgery and medicine? Is there a true scientific boundary, on the one side of which lies surgery, and on the other medicine? May we say, all processes that tend to *localisation* in the form of tumour, abscess, and so on, call for surgical aid; and that the general processes affecting the whole organism, as toxæmia, the various morbid diatheses, are medical? It is impossible to draw a line that will stand the clinical trial. Diseases, at first appearing to be local, are constantly tending to invade in some way the entire organism; and many general diseases tend to produce local conditions which call for the Surgeon.

We must then abandon the attempt to distinguish medical from surgical diseases. In spite of the fashionable tendency to split up pathology and practice into fragmentary specialities, the law of Nature is too strong. It asserts its predominance over Fashion and Art, and the arbitrary dictates of Colleges and Schools. The tendency of Science to re-unite all fictitious divisions into one harmonious whole is irresistible. And this tendency has never before been so strikingly manifested as it is at the present time.

There are two kind of organs—the single and the double. Of the double organs, as the kidneys, one is commonly enough for the purposes of the economy. So if one is diseased, it may be removed. Some of the double organs may both be dispensed with, as the testicles, the ovaries, and uterine appendages. Of the single organs, some are essential to life, and cannot be removed; but in some of these, as the brain and liver and intestine, partial removal may be called for. Other single organs, as the spleen and uterus, however useful when sound, may be wholly removed if so diseased as to threaten life.

Let us now take a rapid survey of the recent attacks upon disease in the great nerve-centres. Not content with treating, or often simply looking on at, the manifestations of nerve-diseases in the periphery, or distribution of the messengers from the brain and spinal cord, the Surgeon now, in not a few cases, rightly interpreting the messages delivered, ascends to their source.

The means of right interpretation of signs have been obtained by minute clinical observation and by vivisection. Taking the brain first, we owe to Broca, in 1861, the localisation of the seat of articulate language. Alexander Robertson, in 1856, suggested that there were separate sets of fibres for the conveyance of special motor impulses from the cortex. Hughlings Jackson, in 1866, defined limited areas on the brain as connected with separate and distinctive functions. Fritz and Hilzig, in 1870, demonstrated on animals a series of circumscribed areas on the surface of some of the convolutions, the electrical stimulation of which caused on the opposite side of the body co-ordinated movements in distinct groups of muscles. Ferrier, in 1873, verified the observations of Jackson. I cannot do more than mention with honour the illustrious name of Charcot, who has helped to throw so much light upon this branch of physiology and pathology, when he generously says, “British surgery is to be highly congratulated on the

recent advances made in the surgery of the nervous system." I am sure that British Surgeons will cheerfully acknowledge Charcot's merit as a pioneer and guide in their advances.

One of the first, if not the first, Surgeon to turn to practical account the recent precise knowledge of the functions of the brain, was MacEwen of Glasgow. He has sketched the history of his work in his Address to the British Medical Association. In 1881 he contended that, "When the skull can be opened, the cerebral coverings incised, and the brain exposed without fear of inflammatory mischief, trephining ought to be employed when the localisation of the lesion is established. And, further, besides operating in traumatic cases, trephining is justifiable in idiopathic cases." I will not reproduce the histories of the operations performed by MacEwen from 1879 to the present time. They are now published, and will rank as an enduring landmark in the history of surgery. He removed successfully tumours of the brain arising from effused blood and syphilis. Jacksonian epilepsy was cured by removing a cyst. This statistical *résumé* is of deepest interest. "Of 21 cerebral cases (exclusive of fracture of the skull with brain lesions or other immediate effects of injury) in which he operated, there have been 3 deaths and 18 recoveries. Of those who died, all were *in extremis* when operated on. Two were for abscess of the brain, in one of which the pus had already burst into the lateral ventricles; in the other, suppurative thrombosis of the lateral sinus had led to pyæmia and septic pneumonia. Of the 18 who recovered, 16 are still alive, and most are at work."

An interesting incidental achievement is the re-implantation of bone to fill the hiatus in the skull left by injury or made by operation. MacEwen has proved how effectually the skull-cap can be made sound again. His experience in attacking lesions of the spinal cord is equally gratifying. He relates six cases, the first in 1882, in which he removed the posterior arches of vertebræ to get at the root of disease.

I can but note the equally brilliant results of Victor Horsley. In a memoir, in the last volume of the "Medico-Chirurgical Transactions," Dr. Gowers and Mr. Horsley relate a case in which the diagnosis of an intra-dural tumour appearing to be well founded, an operation was performed for its removal. The growth was discovered, removed, and the patient recovered. Appended to the surgical history of the case is a table relating to 57 other cases, from which it appears that operation is the only treatment to be adopted in such cases; and that if it had been resorted to, 80 per cent. should have recovered, whereas all died.

Six cases are now on record, others perhaps have escaped me, for the relief of paraplegia caused by pressure on the spinal cord. The posterior arches of the vertebræ were successfully removed.

It is then conclusively settled that the dogma declaring "trephining of the spine as an operation not within the range of practical surgery" must be abandoned.

Epilepsy is, in some cases at least, brought within the dominion of the Surgeon. Victor Horsley says ("Brain Surgery," *British Medical Journal*, 1886—1887), "I wish to point out that the removal of an epileptogenous focus is not only justifiable but called for. The exact localisation could be ascertained by the use of the induction current, the employment of which means I resorted to for diagnosis nearly three years ago." *Brain*, vol. vii., p. 232. "From the experience gained from case 4, it is clear that even the most malignant tumours may be successfully attacked, and life thus prolonged and ameliorated; but it also shews that the malignant growths must be excised very freely from among the white fibres." "The details of the cases equalling ten (of which nine recovered) shew that the operation of exposing and removing considerable portions of the brain is not to be ranked among the 'dangerous' proceedings of surgery."

When the brain is assailed by disease starting from the ear, the Surgeon follows in the track by trephine, and knife, and saves the patient. A beautiful case is narrated by Ferrier in the *British Medical Journal* in March, 1888. The operation was performed by Mr. Horsley.

Bland Sutton ("Medico-Chirurgical Transactions, 1888,") relates a most instructive case of intolerable agony from spasmodic attacks due to the third division of the fifth nerve being involved in a cancerous mass. Sutton dissected down to the foramen ovale, removing a circular portion of the ramus of the jaw. He then divided the structures emerging from the foramen ovale, thus dividing the third division. Freedom from the pain and spasms ensued, and the patient said "he was in heaven" compared to his previous state. He lived on in comparative ease for eight months.

I must crave indulgence if I offer a few remarks upon Epilepsy. It is a symptom like hysteria. Is it ever primarily centric in origin? Is it the secondary or reflex functional response of the nervous centres to eccentric disease, as uterine or ovarian? Is it the secondary or tertiary complication of the nervous centres which become implicated in primary blood-infections, as in syphilis?

We may partly answer these questions by the light of analogy. What is hysteria? The day is gone by, or ought to be, when hysteria can be considered as an entity, an *integral* disease. The word taken as many long used it, and as some physicians still use it, is simply an *asylum ignorantie*. It is as truly as epilepsy, or other form of convulsion, as eclampsia and tetanus, a consequence, a symptom, of abnormal irritation or malnutrition of the nervous centres. When therefore we witness the symptom, hysteria, the obvious indication is to seek for the cause of the disorder of the nervous centres.

Surgery unveils the mystery, and removes the cause, in a multitude of instances. And if there still remain a residuum

of cases which baffle us for a time, we must not be content with inane and ignorant babble about neurosis and neurotic diathesis; and still less with the brutal dogmatism which thinks to exorcise a disease by telling the sufferer that her sufferings have no other foundation than her own wilfulness. Instead of telling his patient to cure herself, such a physician ought to cure himself of prejudice by seeking knowledge.

A few words as to operation on the thorax. I pass by all reference to injuries from violence.

Sir G. Macleod says, "Resection of the ribs, thoracoplasty, and of all unyielding structures, so as to admit of more complete draining and collapse of the cavity, which was a startling suggestion only five or six years ago, is now frequently and successfully performed. This proceeding Estlander has systematised, and the operation often goes by his name."

MacEwen successfully evacuated an abscess in the posterior mediastinum, which was exercising pressure on the heart and bronchi, and threatening life.

I need but mention the operations upon the larynx and throat.

Let us now pass on to the third great cavity—the receptacle of the digestive apparatus and of the organs of generation in woman. During the last twenty years especially we have become familiar with the exploits of surgery in the abdominal and pelvic regions. And it may be fairly said that the brilliant successes achieved here, have exercised some influence in the promotion of surgical enterprise in other directions.

There was a time, not very remote, when the Surgeon's work was all but limited to the extremes of the alimentary canal, the mouth, and the rectum. To plunge *in medias res*, to track disease in the abdomen itself, was to dare too much. We may now boast that the entire tract of the alimentary canal can be brought under actual inspection, and can, in fitting cases, be

operated upon. It is enough for our present purpose to trace the canal, step by step, and to note that at almost every point the Surgeon has brought his skill to bear in cases where the art of the Physician had failed. We may begin with gastrostomy, the object of which is to get food into the stomach when the œsophageal route is blocked. Since the first successful operation by Sydney Jones, in 1874, it has taken rank in legitimate surgery.

The orifices of the stomach may, if constricted by other causes than cancer, be usefully dilated. The pylorus, if the seat of cancer or tumour, has been successfully extirpated. The natural route from stomach through pylorus to duodenum being unavailable, a devious new route may be constructed from the stomach to some lower part of the small intestine. Then there are various proceedings for the relief of intestinal obstruction, for which the way is opened by laparotomy. I know nothing more distressing than to see a woman die after childbirth from strangulation, volvulus, or intussusception, when effective relief might have been obtained. Obstruction by inflammatory adhesions may be relieved, and also by pressure of tumours, if not by simply liberating the intestine, then by opening it, and forming an artificial outlet.

The cæcum, or a portion of it, may be removed. In the event of perforation of any part of the stomach or intestine, and escape of contents into the peritoneal cavity, an event almost necessarily fatal, laparotomy comes in. The cavity can be cleared out, and the opening can be closed, restoring the canal to practical integrity.

A most interesting contribution to abdominal surgery was made, in the "Medico-Chirurgical Transactions" of this year, by Mr. Treves. It is entitled "On Relapsing Typhlitis." He shews that "in the greater number of cases of typhlitis, the cæcum has been found intact, whilst the appendix vermiformis is inflamed, and probably perforated." The appendix he says "is a part

of the human body that is in reality obsolete, and exists as an organic anachronism." This reminds one of a dictum of Sir William Gull, who said that the appendix was simply a trap for cherry-stones and similar things leading to mischief, and so offered a splendid field for surgical enterprise. Mr. Treves relates a successful case of operation.

The liver is an organ some of the diseases of which invite radical or palliative surgical treatment.

Abscesses, if not diffuse, are successfully treated by free incision. The "tropical abscess," with which I became familiar when physician to the Seamen's Hospital, especially calls for surgical treatment. But I confess that at the time, now twenty years ago, when I held that office, my mind was not fully expanded to appreciate the practice. But hydatid cysts presented, I think, no room for hesitation. I have operated for them successfully. I do not without qualification assent to the rule laid down by Erichsen, "that surgical interference should never be undertaken until the tumour reaches such a size as to become a source of inconvenience to the patient."

The gall-bladder has been often laid open to remove gall-stones, since Tait shewed the way.

The kidney falls more and more under the dominion of the Surgeon. I cannot recount the various operations that have been performed. It must suffice to say, that one kidney can be spared if it is a source of trouble or the seat of incurable disease.

A most striking testimony to the power of modern surgery is seen in the treatment of stone. Till quite recently the Surgeon had to wait until the stone dropped into the bladder, when he would either seize and crush, or cut it out. Now, in cases where the stone is retained in the kidney or ureters, he no longer waits when severe symptoms urge, but he opens the abdomen and goes straight to the source. This operation will greatly supplant the tedious and uncertain attempts to dissolve and wear away the stone by chemical agents, the sole resource

of the Physician. The names of Lucas, Godlee, Henry Morris and Herbert Page are honourably associated with this operation.

Simple laparotomy for ascites is often better than tapping. F. Treves, Lawson Tait, Barwell, have advocated free incision and drainage in all cases of purulent peritonitis or acute septic peritonitis. The abdominal cavity can be thoroughly cleansed, and in some cases unsuspected tumours are found and can be removed.

Even in some cases of ascites from malignant disease of the peritoneum, great relief and even equivalent to cure may be obtained. Some years ago I was summoned into the country to perform ovariectomy on the diagnosis of the Surgeon in attendance. Examination satisfied me that there was no tumour, so I said I would operate, but should not be able to shew him the tumour. The abdomen was laid open by incision four to five inches long; two gallons of fluid were let out, and the whole exposed surface of peritoneum was found studded with what looked like cancerous excrescences. The condition of the patient, which seemed desperate before the operation, was almost immediately improved, and two years afterwards she was reported well, having resumed her household duties. A very similar case, equally successful, was under my care at St. George's Hospital. She was discharged relieved, and three years afterwards she surprised us one day by coming to shew herself in good health.

In chronic tubercular peritonitis excellent results have followed upon laparotomy.

It is only necessary to mention the results achieved in ovariectomy. The victory of the Surgeon over ovarian disease is almost complete. Allied to this triumph, because dealing with contiguous organs is the success achieved in the removal of diseased Fallopian tubes. This may fairly be called Tait's operation. Nothing in pathology is now more clearly proved

than the frequent peril caused by salpingitis, and hæmato salpinx, and nothing more certain than the power of the Surgeon to avert the peril. Associated with this operation upon diseased tubes, we must note the case of tubal gestation, the imminent danger of rupture attending it, and the imperative duty of performing laparotomy to remove the structures implicated.

There is the puerperal salpingitis. It may begin during gestation or even before, as from gonorrhœa, or it may start from the uterus after labour. Escape of pus may occur and cause fatal peritonitis. In the "System of Obstetric Medicine and Surgery," by myself and Fancourt Barnes, it is expressly said that "these are cases in which Lawson Tait's operation—the removal of the diseased tubes—may find legitimate application." It has since been performed.

I may here take occasion to declare, from repeated personal observation, that the removal of the healthy working ovaries is a legitimate, because successful, operation in the treatment of some forms of fibro-myoma of the uterus.

Then there are the operations for the ablation of uterine tumours which cannot be removed through the vagina, or arrested in their growth, and the total ablation of the uterus.

It may be stated generally, that the effective treatment of ovarian, uterine, and vaginal disease is essentially surgical. The gynæcologist must perforce be a Surgeon.

One more remark. I have dwelt chiefly upon what may rank as capital operations; but it should not be forgotten that the applications of minor surgery to the treatment of the genital organs deserve a place amongst the triumphs of modern surgery. Many of these diseases are open to attack by the knife, by cautery, and various chemical agents, through the natural passages. It is when the resources of minor surgery fail that we are sometimes led to consider how far we can succeed by resort to the major operations. It may with truth be said,

that the continuous clinical observation of these diseases, and the familiar use of the ordinary topical means, lead the Surgeon directly and naturally to the more severe and heroic methods. Thus trained in diagnosis, he becomes qualified to operate; and by operation he perfects his diagnostic skill. Greig Smith, in his admirable work on "Abdominal Surgery," says truly—"The man who operates is the man who must diagnose." The converse is equally true—"The man who diagnoses is the man who should operate." The opinion of the gynæcologist who does not carry through the treatment of uterine or ovarian disease to the full surgical extent is entitled to scant respect. He renounces that last crowning experience which completes knowledge and justifies confidence.

At the conclusion of this imperfect sketch of the triumphs of modern surgery, one sad reflection arises.

Who of us, especially those of long experience, can look back without regret upon opportunities lost; who can think without pain of the men and women who have been doomed to untimely death, who might have been saved had we possessed the power that present knowledge gives? I can but exclaim, "O mihi præteritos referat si Jupiter annos!"

But if the Past has its element of sadness, let us remember the lessons it teaches, and rejoice in the certain prospect of a more glorious Future.

The President, in thanking Dr. Barnes in the name of the Society for his interesting and valuable paper, pointed out that operations on the gall-bladder were first introduced by Marion Sims, and not by Lawson Tait.

Mr. Stevens thought it difficult to criticise Dr. Barnes' admirable *résumé* of these new fields of surgery; and he believed that the credit of the success in these operations was as much due to the antiseptic system as to the bold increase of the use of the knife. Asepticism was as far off as ever.

Dr. Braxton Hicks said that there could be no question that lives of patients were now saved which were formerly

sacrificed, and related a case he had had with Dr. Barnes, in which soon after marriage a tumour developed behind the enlarged pregnant uterus. At first the tumour was thought to be a retroflexed uterus; however, both it and the uterus rapidly increased in size, and at three and a half months of pregnancy abdominal section was performed successfully. The tumour, which proved to be a fibroid, and filled the cavity of the pelvis, was with difficulty lifted out, but after that had been accomplished, was easily removed. Miscarriage took place some time afterwards. Had this case been left Cæsarean section would, in all probability, have had to be performed. He also related a successful case of ovariectomy during pregnancy. The tumour, which was found to be twisted, was easily removed; miscarriage ensued after the operation.

Dr. Herman considered that the recent bold operations of surgery were in great measure due to Lister's treatment, although no mention of it was made by the author of the paper. In abdominal operations, the great danger lay in unclean instruments and hæmorrhage, not in the actual opening of the abdominal cavity. He thought the peritoneal cavity should be opened in all cases of peritonitis, except where this was due to some blood condition. Great triumphs had been effected in extra-uterine gestation. These cases must be operated upon early, not when the patient was moribund, and this was the only treatment left. As to disease of the uterine appendages, he thought there was not sufficient known to justify any positive opinions.

Dr. Turner spoke of cases coming under the Physician benefited by modern surgery—tumours of pylorus, thoracic cases, &c. As evidence of the good results of operations in peritonitis, he quoted Sir Spencer Wells' case of tubercle of the peritoneum. On looking into the past, many were the regrets for previous ignorance.

Dr. Herman asked as to the propriety of laparotomy in chronic peritonitis.

Mr. Percy Warner related a case in which a tumour connected with the Fallopian tube, and involving the wall of the uterus, was successfully removed, together with the uterus, through an abdominal incision—the peritoneum being united over the uterus. In this case there were signs of internal hæmorrhage, with vomiting, &c. Complete recovery took place without any bad symptoms.

Mr. Brownfield believed antiseptic precautions in injuries of the brain to be of great importance. Compound comminuted fractures of the skull, which were formerly fatal, now recovered by these means.

Mr. Bowkett thought that these recent advances in surgery placed general practitioners in a far more responsible position than formerly. Many cases of surgery, not necessarily fatal, were seen by them, and concerning which they had to give answers to numerous enquiries.

Mr. Percy Warner asked Dr. Barnes whether abdominal section should be performed in peritonitis after parturition.

In reply, **Dr. Barnes** said that ovariectomy in pregnancy had been established thirty years ago. The ovary should always be removed first. Although he had not mentioned the subject of anæsthetics and antiseptics (in their broad sense), they should always of course be used—they were the foundation of modern surgery. He did not think that any good results were to be gained by operation in peritonitis after parturition.

Dr. Gilbert shewed a recent specimen of a “*Stomach with great thickening of the Pylorus, apparently malignant.*”

It was taken from a man, aged 50, who had suffered for four months from symptoms of gastric disease, persistent vomiting, &c., but no blood. There was slight dilatation of the stomach, but no adhesions to surrounding viscera, &c. No secondary deposits.

A Committee, consisting of Dr. STEPHEN MACKENZIE, Dr. GILBERT, and Dr. DAVIES, was appointed to report on the specimen.

The meeting then adjourned.

A Meeting of the Hunterian Society was held at the London Institution, on Wednesday, October 24th. Mr. R. CLEMENT LUCAS, President, in the Chair.

Sir JAS. PAGET, Bart., was elected an Honorary Fellow.

Mr. T. C. BARLOW, Mr. W. PERCY REYNOLDS, and Dr. FRANK HEWKLEY were elected ordinary Fellows.

Dr. WASHBOURN, Dr. H. A. SANSOM, and Mr. C. H. HOGARTH were proposed as ordinary Fellows.

The PRESIDENT announced a long list of Books which had recently been presented to the Society.

Dr. Gilbert shewed "*A case of Lupus of the Nose*" in a woman, aged 50; it had existed for many months, and been treated with an ointment of mercury.

The President did not think that the disease in this case was in any way connected with syphilis. Cases of lupus he thought had often a traumatic origin.

Dr. Stowers agreed with the President as to injury being a frequent cause of lupus. In the present case he suggested scraping as an effectual method of treatment.

Dr. Stowers then read a paper upon "*The Treatment of Skin Diseases bearing especially upon the nature and application of certain new remedies*;" numerous specimens of which were exhibited, in addition to a complete series of the medicated plaisters lately advocated by German dermatologists. Among the former were included the oleates of arsenic, mercury, bismuth, zinc, lead and copper; thymol crystal, lanoline, lanoline emulsion, resorcine resublim, glycerine of lead. Ichthyol and ichthyol ointment in various proportions, 10—30 and 40 per cent. Soziodol, liq. saponis kalini, standard solutions (Allen and Hanbury) for hypodermic use of arsenic, bichloride of mercury, &c.; also prepared calamine, antiseptic dusting powders, naphthol, naphthaline and hydronaphthol, oil and ointment of Eucalyptus, chrisma sulphuris, chrisma alb., chrisma acid carbolici, kalin, glyceroles of zinc, lead,

mercury, &c. Powdered talc, sodium fluosilicate, solution of gutta percha, &c., &c.

After enumerating the various drugs (now over thirty in number) capable of producing characteristic eruptions upon the skin, reference was made to certain cases which had lately come under observation—viz., those dependent upon the administration of the iodides, and bromides of potassium, chloral hydrate, salicylic acid and iodoform.

Concerning the treatment of lupus, the author pointed out the necessity of active local measures in the early stages in addition to the drugs (iron, iodide of potassium, tincture of iodine, arsenic, &c.) commonly in use, as erasion and the free use of nitrate of silver. Dr. Pacquelin's cautery and electrolysis. When the disease first made its appearance upon the face of children, good and lasting results had been obtained by excision, with the effect that limited linear scarring had been produced instead of the more extensive, and sometimes more irregular and puckered, scars following erasion and caustics. As the result of numerous trials, Dr. Stowers was unable to speak favourably of the use of Resorcin in form of lotion or ointment for the cure of Erythematous Lupus. Extreme caution in the employment of counter-irritation over vaso-motor centres in chronic eczema, especially in old persons in whom prurigo was not uncommon, in consequence of the extensive aggravation of this latter disorder it was capable of producing.

For Tinea Tonsurans, Burt's blistering fluid, followed by strong carbolized ointment, ʒi—iii to the ounce, and the application of Unna's salicylic acid and creasote plaister was one of the best forms of treatment, although Harrison's method in suitable cases was an efficient means of eradicating the disease, if sufficient time and attention could be given to necessary details, as recent observations had proved to the satisfaction of the author. Dr. Stowers also referred at some length to the treatment of eczema, psoriasis, and prurigo, and concluded by

pointing out the value of correct diagnosis, and various other matters of importance in connection with the successful treatment of skin diseases.

The President, in thanking Dr. Stowers for his interesting paper, asked whether any definite poison, chemical, or otherwise, had been discovered in shell-fish as a cause for the cutaneous eruption usually seen.

Dr. Gilbert enquired as to the treatment of lupus in its early stages.

Dr. Perry discussed the methods of treatment adopted in long-standing cases of lupus, in lupus erythematosus, psoriasis, and other affections of the skin.

Dr. Stowers, in reply, said he was not aware of any specific poison having been obtained from shell-fish.

The meeting then adjourned.

A Meeting of the Hunterian Society was held at the London Institution, on Wednesday, November 14th. Mr. R. CLEMENT LUCAS, President, in the Chair. Clinical Evening.

Sir WILLIAM JENNER, Bart., and Sir JOSEPH LISTER, Bart., were elected Honorary Fellows.

MESSRS. ARTHUR EVERSHED and F. ROLAND COX were elected ordinary Fellows.

MESSRS. SHUTZ SHARMAN, F. R. HUMPHREYS, NATHANIEL H. TURNER and F. HOLMAN were proposed as ordinary Fellows.

Mr. PERCY REYNOLDS was admitted a Fellow of the Society.

The PRESIDENT announced an additional list of Books presented to the Library of the Society.

The President shewed "*A contracted puckered Kidney*," removed on the previous day from a boy, aged 11. The kidney had suppurated, and was opened through the loin twelve months before. A calculus was removed three months ago, and, the suppuration continuing, the relic of the organ was removed, leaving the capsule behind.

Dr. Hingston Fox shewed "*A case of Exaggerated Wrist and Elbow Jerks*" in a woman, aged 58 years, with ataxic gait, failing memory and general powers, and weakness of the left arm and leg. She suffered from lightning pains and two attacks like gastric crises; also left hemiplegia twice, if the imperfect history is reliable. Some ptosis was present; the pupils were contracted, but moderately active. The knee-jerks were exaggerated, and all the superficial muscles of the arm and forearm could be similarly excited by tapping on the left side; to a less extent on the right. There was a doubtful syphilitic history.

Dr. Hingston Fox shewed "*A case of Syphilitic Disease of the Nervous System*" in a woman, aged 43. Twelve years ago she had secondary symptoms. Eight years ago paralysis of the right arm and left leg occurred; three years after paralysis of both legs. She soon recovered after each attack. A year and a half ago she was mentally affected for three weeks; ten weeks later atrophic paralysis of the extensors of the right knee set in, and had persisted, followed by passive effusion into the joint. The knee-jerks were lost. The case illustrated the erratic nature of syphilitic nervous disease and its multiple lesions. Gummata was suspected to exist in the cord.

Dr. Hingston Fox shewed "*A case of Epithelioma of the Gum*" in a man, aged 64. There was a rounded tumour, two inches in diameter, ulcerated on the surface, occupying the gum and hard palate on the right side. It was of six weeks' growth, and the molar and bicuspid teeth, which were loosened, had been removed. He had lost flesh somewhat of late, although his general health was fair.

Mr. Tatham narrated a similar case in a woman. A tumour of the size of a walnut existed on the upper jaw and was successfully removed. Six years later the patient died in the London Hospital with cancer of the pylorus and stomach.

The President thought the case clearly one of epithelioma, and related a case similar to that of Mr. Tatham's. The tumour had grown from the upper jaw of a man, and was twice removed successfully; the patient, however, gradually emaciated, and died of malignant disease of the pylorus.

Mr. John Poland agreed with the diagnosis of the case, at the same time pointing out the difficulty often experienced in distinguishing in their early stages these tumours arising in the alveolus from those growing from the antrum.

Mr. Tatham shewed "*A case of Recovery from Complete Paralysis following Spinal Injury*" in a man, aged 38, who, three years ago, had fallen in a fit in a public-house, striking his head against the counter, and forcibly flexing the neck. He was immediately taken home, and seen shortly afterwards. He did not recover consciousness until the next day, and was completely paralysed on both sides from the head downwards, being only able to breathe, and with some difficulty to swallow. Sensation as well as motion was gone, and he was unable to retain the motions or pass urine. He remained in this state for over three months, taking only liquid nourishment, when movement and sensation began to appear in the right fingers and toes, and steadily increased, so that at the end of fourteen months he could just stand alone. When exhibited, he could walk from ten to twelve miles and use his hands, but not sufficiently to follow his occupation as carpenter. Mr. Tatham thought that the forcible flexion of the neck had caused a partial dislocation and slight fracture on the right side, which had given rise to compression and bruising of the cord, as well as, in all probability, some slight hæmorrhage. There was still an irregularity in the spine at the part, but hardly so distinct as some time ago. The treatment adopted was simple perfect rest, with the administration of mercury, salines, and iodide of potassium later on.

The President believed the case to be exceedingly interesting and very unusual, in that almost complete recovery had

taken place after total paralysis. Where there was complete paralysis with a severe fracture of the spine, death usually took place within 48 hours.

Mr. Poland thought that the thickening still remaining was at the third cervical vertebra. It was not an uncommon thing to find a fracture of the spinal arch, transverse or articular process a short distance off the main seat of lesion of the spine. From the history of the case, he inclined to the belief that much of the compression of the cord had been due to hæmorrhage.

Mr. Brownfield related a case in which recovery ensued after reduction of a fractured and dislocated spine. A plaster of Paris splint was applied. He asked Mr. Tatham whether any marked deformity had been noticed at the time, and whether extension had been made to the spine.

Mr. Bowkett narrated a somewhat similar case which he had seen a few days ago. A man had fallen on to his head when intoxicated, and was thought to have fractured his spine. There was paralysis of motion and sensation in both legs and left arm, and loss of sensation in the right arm.

Mr. Tatham, in reply, said there was no marked deformity of the spine at the time, and no extension was attempted.

Mr. Cotman shewed "*Two cases of Acute Transitory Universal Dermatitis.*"

Both patients had suffered from a bright red rash, commencing on the back and buttocks and spreading symmetrically over the entire surface of the body, preceded and accompanied by severe burning and itching, and followed by desquamation and exfoliation of the cuticle, leaving a soreness and discolouration of skin. In one case there was cramp and lumbago, in the other severe neuralgia. The cases occurred simultaneously in January, and again in October, within two days of one another. There was no sore throat, strawberry appearance of the tongue, or any rise of temperature.

Dr. G. A. Carpenter thought these cases of extreme interest. He had seen a somewhat analagous case in the Evelina Hospital, in which there was a typical scarlet fever eruption, but no elevation of the temperature, and the patient was apparently quite well. Eight days after the first appearance of the rash another case of typical scarlet fever occurred in the ward, and infection soon spread throughout the ward.

Dr. Turner exhibited a child, aged 13, who presented the typical appearance of "*Sporadic Cretinism*," with characteristic fatty tumours about the neck, absence of thyroid gland, &c.

Dr. Turner shewed a child, aged 5, with *an oval hard Tumour on the left side of the Tongue, probably inflammatory*, and due to carious teeth.

Dr. G. A. Carpenter shewed "*A case of Spasmodic Wry Neck*" in a boy, aged 17. The torticollis had existed for two years. There was some spasm of the facial muscles, and marked deficiency in his mental condition, probably congenital. Treatment was of no avail.

The meeting then adjourned.

A Meeting of the Hunterian Society was held at the London Institution, on Wednesday, November 28th. Mr. R. CLEMENT LUCAS, President, in the Chair.

Dr. WASHBOURN, Dr. H. A. SANSOM, and Mr. C. H. HOGARTH were elected Fellows.

Dr. BARLOW was present as a visitor.

The President shewed "*A Hydronephrotic Kidney*" that he had removed on the previous day from a young woman, aged 25. Seventeen ounces of urinous fluid had been drawn off about a fortnight before, but the tumour rapidly refilled. At the time of the operation nineteen ounces were withdrawn before the tumour was removed through the loin. The patient was progressing favourably.

Mr. Jonathan Hutchinson said he had operated upon a parallel case. The attempt to remove the kidney through the loin was unsuccessful, on account of the extreme thinness of the wall of the cyst, and the consequent inability to pull it out after the most careful attempts. The cyst was due to obstructive disease low down, and had been tapped. As much of the cyst was removed as possible. The patient made a good recovery, although the wound was still open and secreted urine.

The President thought that repeated tappings gave rise to peritoneal adhesions, as in the above case. Hydronephrosis was always most easily removed, and through the loin.

Dr. Davies shewed "*A case of Congenital Tumour of the Tongue*" in a man, aged 52. The growth towards the tip of the tongue had existed since birth and gradually increased in size, with but little inconvenience to the patient.

Mr. Hutchinson drew attention to a paper he had written on congenital tumours of the tongue in the "*Royal Medico-Chirurgical Transactions*," and in which he figured a similar case to that shewn by Dr. Davies. The growth was confined to one half of the tongue, and he had watched its progress in the patient from childhood to adult life. It was in reality a mole, not vascular or nævoid in character, but a true papillary growth,

consisting of hypertrophied papillæ, and liable to inflame in paroxysms. He had seen three or four examples of this disease. He also narrated another case he had figured of a Medical student with a solid growth of the tongue which had developed lymphomatous characteristics. The tongue was removed successfully, and good speech resulted, but three years later, when the patient was 22 years of age, the growth returned in the glands, and death rapidly ensued.

The President expressed the opinion that the growth in this case might become malignant, especially as the patient was about the cancerous age.

Dr. Gilbert shewed the "*Case of Lupus of the Nose*," brought before the Society one month ago (Oct. 24), and which he had since treated successfully with bichloride of mercury and colodion (3 grs. to 1 oz.), followed by creasote ointment.

Mr. Jonathan Hutchinson then read a paper on "*Affections allied to Raynaud's Disease*."

The history of the affection, as described by M. Raynaud, was first discussed—including the typical symmetrical gangrene of the extremities, due to spasm of the arteries, *local asphyxia* from arterial contractions with venous dilatation, and *local syncope* from arterial contraction without venous congestion. Several characteristic cases were then narrated. Nearly all cases began with pallor and passed into the dark stage. The author then drew attention to Dr. Barlow's views regarding the permanent condition of whiteness of the skin following attacks of Raynaud's disease, and which resembled scleroderma. He (Mr. Hutchinson) considered *diffuse scleroderma* an ally of Raynaud's disease. He did not know of a case where typical Raynaud's disease passed on to this condition. Diffuse scleroderma was often associated with gangrene. The question of neuritis in these cases was then discussed, also the relation of *chilblains* to Raynaud's disease; the latter was a reflex condition; the former a local disturbance of cell nutrition with excess of blood to the part. The connection of

this disease with the liability to *frostbite* in certain persons, and which was referable to the nervous system, was next considered; the severity of frostbite varied with the severity of the exposure to cold—a marked contrast to what occurred in Raynaud's disease. The relationship of cases *where structural changes do not tend to gangrene* was then treated in detail; cases were observed in which the ends of the digits became inflamed under cold and eruptions appeared about the nails; as an instance of this modified form of Raynaud's disease, the author referred to the case of a young lady he had brought before the Society twenty years ago—there was arthritis of the last finger joints, with bony gratings, &c., but no gangrene of the tips of the fingers, which were of a dusky colour; there were also circumscribed patches on the cheeks. The influence of the sexual system in Raynaud's disease was then touched upon—menstruation did not appear to affect its occurrence; *coldness* of the fingers in certain female subjects was often found to pass off when they became pregnant; a similar condition of *dead* fingers was often seen, the fingers became white and cold if in contact with cold, but passed off when these parts became warm. Another condition which was neither Raynaud's disease nor chilblains occurred in patients with large red flabby hands—if these were exposed to cold, spots were brought out, giving a "*plaice-like*" appearance. These patients are always chilly, but never get chilblains or gangrene. The author then asked as to whether very young children were liable to disorders of the circulation of this kind. Dr. Barlow had met with such cases; he (Mr. Hutchinson) had not. The question of *treatment* was then fully discussed, and the possible *causes* next enumerated, viz.: (1) exposure to cold, either local or involving the whole body; (2) influence of sex; (3) influence of emotions; (4) influence of digestive system; (5) influence of exhausting disease, as fever, &c.; (6) influence of ague, especially in severe cases; (7) influence of syphilitic poison; (8) influence of law of pathological habit (ease of production

of disease frequently repeated). In conclusion, the author suggested two points for consideration in this form of disease: (1) as to the congenital organisation of the patient affected—such as predisposing causes, congenital, tendency to nervous disease, or disease of the circulatory system; (2) as to the influence of personal exposure—such as fever, malaria, ague, syphilis, &c. The connection of Raynaud's disease with intermittent hæmaturia and the observations of M. Raynaud as to its occurrence in the eye were briefly alluded to.

The President thanked Mr. Hutchinson most warmly for his paper, and for the new light he had thrown on the disease, by the grouping of similar cases with this affection. He then drew attention to its relationship with hæmatinuria, and related a typical case under the care of Dr. Wilks, with gangrene of the tips of fingers and ears, associated with hæmatinuria. He also asked Mr. Hutchinson whether there was any connection with asthma—the spasm of the muscles of the bronchial tubes might be analogous to that of the arteries in this disease. He had seen the case of a lady whose fingers in winter turned cold and blue; her father was affected with asthma, and later in life had gout. A dusky, leaden condition of the skin was often seen in old cases of asthma. Lastly, he enquired whether in the syncope cases there might not be contraction of the venules as well as of the arteries.

Dr. Barlow considered the affection a paroxysmal one, due to spasm of the arteries in the early condition and in the later stages permanent. As an illustration of this point, he narrated the case of a well-nourished little girl; at 4 p.m., both hands and feet to the wrists and ankle became quite livid, with pain as in frostbite; in two hours time these symptoms had entirely disappeared. A similar attack occurred next day, and each succeeding day, often at the same hour; each day gradually diminishing, and finally disappeared. A particular point mentioned by Raynaud was that patients never had an attack in bed, only when they were up. In cases where it occurs all the year round it was less marked. As to the local syncope of Raynaud, he did not believe these cases went beyond whiteness. The blue ones often never had any white stage; this white stage was stated by Raynaud to be very rapid and transitory. However, he (Dr. Barlow) had watched cases from the white stage, and they never became blue. In the

white fingers there was spasm of the arteries and veins. The veins then relaxed. Spasm of the arteries was the essential in the one condition and of the veins in the other. He had seen an alternation of strangulation and knotting in places of the veins on the back of the hand. Raynaud had described temporary blindness, with spasm of the central artery of the retina alternating with a knotted condition of the veins. Dr. Barlow thought that the big red hand was a phase in some of these cases; and in some he had observed what he believed was a serous exudation about the hand; these conditions alternated like that above. The cases that develop into scleroderma were of the pallid type and may pass into gangrene, often only over a small area. He then related a case where the hand, arm and trunk became thus affected; and, in conclusion, discussed Mr. Hutchinson's theory of neuritis setting up a condition of gangrene as in perforating ulcer.

Mr. Hutchinson briefly replied.

The meeting then adjourned.

A Meeting of the Hunterian Society was held at the London Institution, on Wednesday, December 12th. Mr. R. CLEMENT LUCAS, President, in the Chair. Pathological Evening.

Professor VIRCHOW of Berlin, Professors CHARCOT and PASTEUR of Paris, and Professors BILLING and GROSS of the United States, nominated by the Council, were proposed as Honorary Fellows.

Messrs. SHUTZ SHARMAN, F. R. HUMPHREYS, NATHANIEL H. TURNER, and F. H. HOLMAN were elected ordinary Fellows.

Dr. WASHBOURN, Messrs. L. A. DUNN, TARGETT, and BURGHARD were admitted Fellows of the Society.

Mr. J. BRYAN SUTTON was proposed as an ordinary Fellow.

Dr. Fowler shewed "*A case with symptoms of Raynaud's Disease.*"

J. W., 44, seaman. Four months ago affection began with pallor of the distal halves of the left third and fourth digits; in a month succeeded by icy-cold hands of a blue colour, with the appearance of two black blisters on dorsum of left hand. Similar blisters shortly appeared in similar positions on the

right hand. These were followed by other large blisters on the backs of the hands—one on each, in identical situations. All the blisters followed the same course—broke, formed patches of black gangrenous skin, which on separation left ulcers. Otherwise the man was in excellent health.

Mr. Corner asked whether the patient had been exposed to severely cold weather; he thought the condition might be explained by frostbite.

Dr. Hingston Fox said that, after a careful perusal of Dr. Raynaud's original essay, he could not consider this by any means a typical case. The symptoms did not correspond. The affection was not paroxysmal, neither was there any local syncope or asphyxia. He considered the affection as allied to Raynaud's disease.

Mr. Tatham enquired whether the pressure of the fingers during the patient's occupation at the wheel might have caused the sloughing.

Dr. Fowler, in reply, said he regarded the case as one presenting some of the symptoms of Raynaud's disease, and thought that pressure of the fingers on the wheel might have started the affection.

The President shewed "*A specimen of Epithelioma of the Upper Jaw*," which he had recently removed from a patient whom Dr. Hingston Fox had brought before the Society on November 14th. The growth largely involved the upper jaw, and extended a little across the middle line.

Mr. Burghard, who had examined the growth microscopically, said that it was a typical epithelioma. On the palate it was dense and hard, whereas in the antrum the polypoid mass was softer. He placed microscopical sections of the growth on the table.

Dr. George A. Carpenter shewed "*Sections of a small Polypoid Growth, removed from the Umbilical Cicatrix*" of a boy, aged 3. The boy was a patient of Mr. Makins. Since birth the child had had a small pedunculated nodule of about

the size of a pea, of a red colour, with a moist surface, resembling at first sight granulation tissue. It had always discharged a sticky fluid, sometimes limpid, sometimes turbid; when rubbed by the clothes it was apt to bleed. The polypus was removed with the galvanic écraseur. The sections shewed a stroma consisting chiefly of fibrous tissue, with many vessels, and a few bundles of unstriated muscular fibres. All round the periphery were tubular glands lined with columnar epithelium, exactly resembling Lieberkühns' follicles. The surface of the polyp, between the orifices of the glands, was likewise covered with columnar epithelium. At one part of the section was to be seen a small mass of myxomatous tissue. Dr. Carpenter said that he was inclined to consider the polyp a remnant of the vitello-intestinal duct, and asked whether the myxomatous tissue might not be likewise a relic of Wharton's jelly. A section of a rectal polypus was shewn for comparison.

Dr. Hingston Fox drew attention to the frequent occurrence of a polypoid mass at the umbilicus associated with a patent urachus. It had usually the appearance of a glans penis, and often communicated with the bladder.

Dr. George A. Carpenter also shewed "*Three specimens of Congenital Heart Disease*" from patients of Dr. Goodhart's.

(1). A heart with pervious foramen ovale.

(2). A heart with perforate septum ventriculorum and stenosis of the pulmonary artery, the orifice of which was guarded by a valve of only two cusps. The aorta was enlarged, and the organ as a whole hypertrophied.

(3). A heart with pervious foramen ovale; questionable narrowing of the pulmonary artery; ulcerative endocarditis of mitral and aortic valves of recent date, with granulations invading the pervious foramen.

Dr. Hingston Fox shewed "*A specimen of Ulceration of the Stomach.*"

It was taken from a gentleman, aged 50, of intemperate habits. He was taken ill with perineal abscesses, &c., and lingered in a septicæmic condition for four weeks, dying very slowly. Excepting profuse hæmatemesis sixteen days before death, there was no history whatever of gastric trouble. The stomach shewed thickened mucous membrane, particularly over the lesser curvature, and here a group of eight or nine ulcers were situated, of various sizes and depths, one nearly perforating the coats, others superficial, the largest was one inch in diameter. Although acute gastric ulcers have been recorded in pyæmia, it was thought from the characters that these were chronic, and their existence a long time without symptoms was of some interest.

Dr. Hingston Fox also shewed, from the same case, "*A series of Ante-Mortem Coagula,*" removed from the cavities of the heart and large vessels. That from the right auricle had been lost, but the three others shewed prolongations extending into the vessels. The pulmonary artery and veins were represented by trees of ramifying coagulum extending into the finer vessels. The clots were pale, firm, and fibrous-looking, non-adherent, softened at one spot only. Dr. Fox believed they had been formed during the slow process of dying.

Dr. Turner thought the ulcers were certainly chronic—they had very thick walls; on the other hand, however, some few might be recent. As regards the clots, he believed they were all formed before death—probably some hours or even days before.

Mr. Brownfield said, in a case he had had, he found a clot adherent to the walls of the left ventricle and extending into the aorta for a distance of four inches. He thought that these clots were more than a few hours in forming.

Mr. Corner related the case of a boy he had seen some years ago at the Dreadnought Hospital. The case was one of

typhoid fever. It was found necessary to pass a catheter for retention of urine. Immediately afterwards respiration ceased entirely, but the heart continued to pulsate. Artificial respiration was performed without avail; death took place in a short time. At the autopsy a clot was found in the right side of the heart extending into the vessels. It had, doubtless, been formed during the slow death of the patient. Mr. Corner believed that very often there was no pain in cases of hæmatemesis due to ulceration in drinkers. The alcohol becoming mixed with the food and blood had an anæsthetic effect on the stomach. He asked Dr. Fox whether there was any cirrhosis of the liver in his case, and if so, whether the hæmatemesis was due to this or to the ulceration.

Dr. Davies quoted the historical case of the Duchess of Orleans, in the reign of Charles II. She suddenly fell dead whilst in the act of drinking. At the post-mortem examination ordered by the King, there was found an ulcer of the stomach with perforation.

The President spoke of ulcer of the stomach in anæmic girls, and mentioned the case of a girl with ovarian tumour, upon whom he was about to perform ovariectomy. The operation had been unavoidably postponed to the following day, when the girl suddenly became collapsed, and died rapidly. Perforating ulcer of the stomach was found at the autopsy.

Mr. Tatham agreed in the belief that marked symptoms were often absent in cases of ulcer of the stomach, and related the case of a young man with slight dyspepsia, who was seized in the night with sudden pain; death rapidly ensued. At the autopsy two separate perforations of the stomach were found.

In reply, **Dr. Fox** said that in his case there was no evidence of cirrhosis. Ulceration of the stomach due to cirrhosis was somewhat rare, although noted by observers.

Dr. G. N. Pitt shewed "*Two specimens of Compression Necrosis.*"

1. *Ulcer on mucous membrane on the posterior surface of the cricoid cartilage, due to pressure against the vertebræ.* From a patient with chronic pyæmia, under Mr. Symonds' care, who was kept in a warm bath at a temperature of 100°; for the three weeks preceding his death he was slung up on bandages, and his head rested on an air pillow. As his body was

constantly immersed his head was persistently retracted ; and the pharynx necrosed as a result of the steady pressure. A similar result occurred in a case of cerebro-spinal meningitis, with retraction of the neck, which was under Dr. Hale White's care two years ago.

2. *Ulcers on the adjacent surfaces of the anterior parts of the mucous membrane over the arytenoid cartilages in a case of enterica.* The patient, a man of 20, died in the third week after he took to his bed from asthenia. He had been ill three weeks previously, and the attack was a very severe one ; he was semi-comatose the last three days of his life. The ulcers are superficial, and the cartilage is not bare. They are said to occur in about 10 per cent. of the fatal cases. They are usually undiagnosed, as the patient's voice is so feeble that any hoarseness or aphonia is not noticed. In the seven or eight cases he had seen the ulcers have been superficial, except in one case, where one arytenoid cartilage was necrosed, and lay in an abscess cavity as a sequestrum ; and two cases in which the surface of the cartilage was carious. In some cases there was only one ulcer. Some authorities think that the ulceration is a specific one associated with typhoid, and there is much to be said for this view ; but in a very severe case, where there are two superficial ulcerations on points persistently in contact with one another, he inclined to the view that the pressure may be the cause. Ulcers in the œsophagus due to pressure are often found in cases where an œsophageal tube has been worn for malignant stricture. There is an ulcer at the back of the cricoid, if the tube passes through the nose or mouth, in addition to the elongated ulcers usually found where the tube has pressed lower down.

Dr. G. N. Pitt also shewed "*A specimen of Extreme Syphilitic destruction of Larynx and Trachea.*"

The patient was a half-starved young woman of 23, who was under his care this summer with extensive syphilitic destruction

of soft palate and fauces, having also hoarseness and stridor. Owing to the extensively ulcerated condition, and the pain at first, not more than the destruction of the epiglottis could be made out. She soon improved under cod-liver oil, good food, and calomel vapor baths, and her dyspnœa entirely disappeared, the fauces scared over, and only her hoarseness remained. With the laryngoscope he was never able to make out more than the destruction of the epiglottis and swelling of the aryteno-epiglottidean folds. As the respiration was unimpeded she was allowed to go out and come up as an out-patient, continuing the antisyphilitic treatment. About three weeks later she died suddenly, and at the post-mortem the true and false vocal cords and the mucous membrane of the trachea were very much more severely ulcerated and destroyed than he had suspected. The patient was so free from any serious symptoms that he was quite unprepared to find such extensive destruction in the lower part of the larynx.

Dr. Fowler asked whether cocaine had been used with the laryngoscope. He thought that destruction of the epiglottis frequently occurred in tubercular disease.

Dr. Turner said that this site near the arytenoid cartilages was not an uncommon one for tubercular ulcers. It was a most dependent part, and some acrid secretion might pass down and cause the necrosis.

After a few remarks from the PRESIDENT, Dr. DAVIS, and Dr. Fox,

Dr. Pitt, in reply, stated that the experience at Guy's Hospital shewed that extensive destruction of the epiglottis was not common in tubercular disease. As to the necrosis in the typhoid case, the patient being in a semi-comatose condition, and the arytenoid muscles motionless, the arytenoid cartilages came close together and caused the ulceration.

Dr. Horrocks shewed "*A specimen from a Fœtus*," carefully dissected by Mr. Targett. During life the fœtus had caused great difficulty in parturition, which finally ended in the death of the mother by rupture of the uterus.

Mr. Targett gave a description of the organs as seen on dissection.

Mr. Bowkett mentioned a somewhat similar case of difficulty of labour after the shoulders had been born. There was an enormous abdomen, due to hydronephrosis. After removal, the mass appeared like a bunch of small white grapes. The child was a female. No deformity of external genitals; the bladder normal, and the ureters not enlarged. Delivery was successful.

Mr. John Poland shewed "*A specimen of Pyæmic Epiphysitis of the Femur, with necrosis of the head of the bone,*" from a girl aged 14.

The disease commenced ten weeks before, with alveolar abscess of the lower jaw. This was followed by pyæmic symptoms and inflammation of the right ankle and knee-joints; later on the left knee and hip became affected. There was some thickening about the lower, as well as the upper, end of the femur. All the joints, with exception of the hip, soon returned to their normal condition; in this suppuration occurred. At the time the affection was considered to be one of multiple epiphysial inflammation, and that probably some necrosis about the head or neck of the femur had taken place. This was found to be the case on excising the upper end of the bone in the usual manner. The head of the femur was found to be loose in the acetabular cavity—necrosed, and devoid of cartilage. The patient made a rapid recovery.

The meeting then adjourned.

A Meeting of the Hunterian Society was held at the London Institution, on Wednesday, January 9th, 1889. Mr. R. CLEMENT LUCAS, President, in the Chair.

Dr. H. A. SANSOM, Dr. BURGER, MESSRS. ARTHUR EVERSHED and HUMPHREYS, were admitted Fellows of the Society.

MESSRS. POOLMAN, BARRETT, and W. J. COLES were elected Fellows of the Society.

Dr. F. J. Smith shewed, for Mr. Cotman, "*A lad with a Ganglionic Swelling above the Wrist*, which had existed for nine months." A smaller swelling was to be noticed near the pisiform bone.

The President said it was evidently a palmar ganglion, and he thought the most efficient mode of treatment was the modern one of incision under antiseptic precautions, and evacuation of the contents of the sac. The smaller swelling near the piriform bone was clearly a pouch from the larger sac.

Dr. Dundas Grant suggested the use of the elastic bandage.

Dr. Pye Smith read a paper on "*Invagination.*"

The writer's remarks were based on 24 consecutive cases recorded in Guy's Hospital. After some observations on the value of statistics, and their liability to give undue prominence to unusual rather than ordinary cases, and to successful rather than unsuccessful, he stated that the large excess of children among the patients (22 under 8 years old, and 14 of these under 12 months) is an important character of the disease; as also the preponderance of males, particularly among children (15 to 7, including two women above 40). The large majority of cases were of the ordinary ileo-cæcal form, three were "enteric" (two adults and one child), and one was "ileo-colic" or valvular. The course was usually acute, under five days in 18 of the 24 cases, ten days in two, and chronic in four, lasting from three weeks to three months. The two cases in adults were chronic. The symptoms were pain and vomiting in almost every case, constipation from the first in most, but

preceded by diarrhœa in some, passage of blood and mucus from the bowels in 22 out of the 24 cases, an abdominal tumour in 16, a tumour felt in the rectum in 8. Abdominal distension was only twice observed in chronic cases, and in one of these there was also visible peristalsis. Symptoms of collapse were common in the younger children. The treatment adopted was non-operative in ten cases, with three recoveries (one after chloroform had been administered), and seven deaths. In nine cases inflation was practised, followed by five recoveries and four deaths; but in one of the latter—in an infant—the gut was found at the autopsy completely reduced. In two of the successful cases the inflation had to be repeated. In five cases laparotomy was performed, in four of them after inflation had failed. Two of these were hopeless from sloughing having already taken place. In the other three the invagination was successfully reduced, but death followed speedily, not from peritonitis, but from shock or exhaustion. Laudanum was administered in most cases after the inflation or abdominal section.

The writer suggested, as a convenient English name for the *intussusception* of Rokitansky, *le boudin* of French writers, including the invaginated and the returning layers—the term “plug”; and thought “valvular” a better term than “ileo-colic” to describe the cases in which the ileum passed through the valve.

Dr. F. J. Smith thought that inflation by air preferable to water, as he considered the *vis inertiae* of water a great objection to its use.

Mr. G. B. Hicks mentioned three cases he had seen; in two of them death took place under the expectant treatment, and in the third recovery after inflation by water. He had frequently noticed syncope as a marked symptom of the affection.

Dr. Gilbert said he could endorse Dr. Pye-Smith's statement as to the uniformity of symptoms in these cases. He then related a case of chronic obstruction in a girl, aged 12.

who had frequent intermissions of great pain and vomiting. No tumour was felt, and no blood passed, but a quantity of mucus. Complete recovery took place under expectant treatment.

Dr. Davies asked Dr. Pye-Smith as to the treatment by inversion of the patient, and whether he had observed hiccough to be a prominent symptom.

Mr. Hogarth thought the temperature of the water injected was important; if too low it would contribute very considerably to the shock.

Dr. Turner spoke of the relative position of a polypus to the rest of the plug. In one case he had seen the polypus, not at the tip of the plug, but at the neck; it had not been the first part to be carried onwards. He then narrated a case where the plug was felt at the rectum and returned. Death occurred after subsequent inflation. He asked Dr. Pye-Smith whether such cases were usually fatal after inflation.

Dr. Fox enquired as to the cause of the invagination in all the cases recorded by the author.

Mr. Humphreys related three cases in young children. Two of these he had treated successfully by injection of water. There was no appearance of shock, and the expression of relief in the patients' face in both cases was very marked. In one case peristaltic action was felt in the tumour itself. In all the cases teething was going on at the time.

In reply to a question from the President, **Mr. Humphreys** said there was no diarrhoea in these cases after reduction.

The President believe that a good many more cases of intussusception recovered after inflation than was generally supposed. Cases were often treated successfully by this method in the out-patient rooms of hospitals and elsewhere, and not recorded. Referring to inversion of the patient, he drew attention to a paper he had written on the subject,* and mentioned a case of the late Dr. Carrington's in which reduction by inflation failed, but was readily accomplished when combined with inversion. If during inflation the abdomen suddenly inflates, either the intestines have burst or the invagina-

* "Hunterian Society's Report," 1885-6, p. 43.

tion has been reduced. When the tumour disappears the abdomen distends, the hand should, therefore, be kept on the tumour during the inflation. The inflation should be stopped directly the tumour cannot be felt. He thought that cases were frequently fatal after operation on account of the extreme loss of power in these sickly, weak children.

Dr. L. E. Shaw said in a good many cases he had seen considerable difficulty was experienced in recognising the reduction of the tumour—some swelling was often still to be felt. The colon becoming dilated would render the tumour less distinct. Again, some difficulty might be experienced in distending the colon, on account of a kink in the intestine. He thought the results of inflation satisfactory; there was, however, in many cases a doubt at the time whether everything had been done for the patient or not.

The President said he had referred to a uniform distension of the abdomen; if the colon were alone distended, it could be easily seen.

Dr. Pye-Smith, in reply, thought it difficult to explain the occurrence of a polypus at the neck of the plug. As to the mechanism in cases of invagination, there was contraction of one part of the intestine which was pushed into the gut below. There was no proof that injection by water was more dangerous than that by air; to get the advantage of weight of the former, the patient must be inverted. If the invagination were near the rectum it should be pushed up thoroughly, and inflation then carried out. Warm water should always be used for injection, especially in children. For some time after but little food was to be given. With regard to reduction of the tumour, it was better to do too little than too much; if fæces were found to pass, inflation was to be stopped immediately.

The meeting then adjourned.

A Meeting of the Hunterian Society was held at the London Institution, on Wednesday, January 23rd, 1889. Mr. R. CLEMENT LUCAS, President, in the Chair.

Professors VIRCHOW, CHARCOT, PASTEUR, GROSS, and BILLINGS were elected Honorary Fellows.

Mr. J. B. SUTTON was elected an ordinary Fellow.

MESSRS. J. HAMMERSLEY, L. A. BIDWELL, and A. Z. C. CRESSY were proposed as ordinary Fellows.

Mr. BARLOW was admitted a Fellow of the Society.

The Doctoral Thesis of Dr. J. H. BARNARD, Paris, was placed before the Society previous to his election as Corresponding Fellow.

The President shewed "*A young girl whose Elbow-Joint he had excised for Pulpy Disease.*" At the same time numerous strumous glands were cleared out of the axilla. Recovery was complete, with excellent movements at the elbow-joint.

Mr. John Poland related a somewhat similar case in a girl, aged 18. The elbow-joint was excised for extensive pulpy disease with necrosis of the humerus; all traces of pulpy tissue being also removed. The wound rapidly healed, and at the end of six weeks the patient was able to resume her occupation with the sewing-machine. He believed that one important aim of the Surgeon was the complete removal of all pulpy and tubercular infiltration.

Dr. Turner shewed "*The heart of a youth, aged 15, in which Extensive Ulceration of the Mitral Valve had resulted from extension of a circumscribed thrombotic necrosis of the Myocardium.*" The lesion differed from the ordinary forms of ulcerative endocarditis in affecting the base of the mitral curtain, the free border being unaffected. There had been pericarditis of severe character, the membrane being extensively ecchymosed, and the exudation coloured by blood. In the kidneys, liver, and intestines were numerous small collections of pus, and ecchymoses, and a small hæmorrhage of the size of a pea in the left optic thalamus. The lesions indicated a severe condition of septicæmia, for which however no primary

source was discovered. There was a history of injury to the right thigh, but no lesion of limb was found on examination. The boy was admitted into the London Hospital in an unconscious state, and died six hours afterwards. He was said to have been quite well until three days before. He then felt ill in the morning, and became delirious at night, and remained unconscious until he died.

Dr. Pitt thought these cases of abscess of the heart were very uncommon nowadays. At Guy's Hospital, during the course of a year, he only met with one or two cases of abscess of the heart with multiple abscess of the body. Dr. Wilks believed that the primary seat of the disease was frequently in the bones.

In reply to a question from Dr. Pitt, **Dr. Turner** said that there was no lesion of the right side of the heart in his case.

Mr. Corner asked Dr. Turner whether his experience at the London Hospital was the same as Dr. Pitt's, seeing that abscess of the heart was by no means rare in former days. He thought himself that the earlier and better antiseptic treatment of affections of the bones and joints had much to do with it.

Dr. Scarth related a case of pyæmic arthritis of the knee, with inflammation of the peritoneum and base of the lungs, and accompanied also with pelvic cellulitis—probably gonorrhœal in origin.

Dr. Turner, in reply, said that he agreed with Dr. Pitt in thinking that the primary seat of the disease might have been in some other place than the heart. Gonorrhœal cases were usually chronic. His case terminated fatally in a week.

Dr. Pitt then read a paper on "*Bronchiectasis in Childhood.*"

He first read notes upon a boy with bronchiectasis over the whole of the right lung.

D. R., æt. 13, one of a family of twelve, of whom eight are dead, four having been still-born, and four having died from specific fevers. The boy has evidences of congenital syphilis and of rickets. He has always been very small, appearing now to be under 10. At 4 he had measles and pertussis, and seven years ago he commenced to expectorate. For years he has had

chest trouble, and has been obliged to lie on his right side, but has been worse for a month. On admission, in February, the right chest has fallen in, it is dull on percussion, with bronchial breathing above and absence of breath-sounds below. Over the left chest there is supplementary breathing; the heart is displaced over to the right side, the apex beat being one inch internal to the nipple. The liver extends three inches below the ribs, and the abdomen is distended with fluid. There is œdema of the legs. The boy lies on his right side, propped up with pillows, cyanosed, breathless and helpless. Urine 1020, loaded with urates; a trace of albumen. Fits of coughing, often terminating with vomiting, occur at intervals of a few hours. The abdomen was drained with Southey's tubes at intervals of two or three weeks, and with considerable relief for a time. With cod-liver oil, tonic treatment, and antiseptic inhalations he improved temporarily. In March a well marked patch of bronchial breathing developed at the right base, but at no time was any pus-containing cavity found, although punctures were made with an exploring syringe from time to time. During April he found that an emetic of sulphate of copper every morning relieved him greatly, and prevented sickness during the day. Gradually the abdomen required tapping more frequently, and in June he died of exhaustion.

At the post-mortem examination the whole right lung was found affected with a chronic pneumonia, which had changed some parts into dense fibrous tissue, and the whole was riddled with fusiform dilatations of the bronchial tubes. There was thickening round the bronchial tubes. The pleura was universally adherent, and much thickened at the apex. The heart was pulled over to the right side, and the left lung shewed a mass of pneumonia at the root which was commencing to caseate; there were also a few fibroid tubercles scattered about. The right ventricle was enormously hypertrophied, being almost as thick as the left.

There can be no doubt that the disease ensued on the attacks of measles and pertussis which the boy had nine years previously. He had suffered with chest trouble ever since, and this had been due to a chronic pneumonia of the right lung, which had gradually destroyed the pulmonary tissue, and led to a uniform dilatation of the bronchial tubes. As long as the hypertrophied right heart was able to do the work, he could get about, but as soon as the muscle degenerated it was obvious he could not live many months.

As the fluid re-accumulated in the abdomen, it was necessary to draw it off, and towards the end it filled up at the rate of eight ounces daily.

An emetic in the early morning made the rest of the day much more comfortable, and for a time he was much relieved by inhalations and expectorant cough-mixture.

The albuminuria was due to the cardiac failure; there was no lardaceous degeneration of the viscera.

Chronic pneumonia is probably the commonest cause of bronchiectasis in children, and a discussion of cases of bronchiectasis associated with cirrhosis of the lung for all ages shows that the cirrhosis is usually the primary cause.

In children occasionally both bases are found to be riddled with small dilated tubes, which may have smooth walls, and often form cylindrical dilatations. The intervening parenchyma may be fairly healthy at first, but the longer the disease has lasted, the greater is the probability that secondary changes have taken place. These are produced by accumulations of mucus in the tubes, which lead to inflammation of the wall and subsequent dilatations, which usually occur irregularly, and form a moniliform tube. Ultimately dense fibroid substitution takes place throughout the lung, and the patient becomes a chronic invalid, with gradually increasing cyanosis and recurrent attacks of bronchitis.

Bronchiectasis also follows on atelectasis, and the author has noticed it especially in the right middle lobe in children.

Chronic bronchitis, even in children, is apt, if long continued, to produce fusiform dilatations of the bronchi.

A number of pathological specimens, illustrating the cylindrical, the saccular, and the irregular dilatations of the bronchi in children, were also shown.

Mr. Corner suggested the use of Southey's canulas, which he had found of use in cases of cancer and in cirrhosis of the liver. He thought the worst cases were those following broncho-pneumonia, and related some chronic cases at present under his care with symptoms like those described by Dr. Pitt. He asked Dr. Pitt as to the possibility of exploring and washing out the dilated bronchi. Dr. Billings' treatment of inveterate cases of broncho-pneumonia, by small doses of mercury, in the form of calomel, he had found to be most beneficial. Much might be done with good feeding and nursing; patients often struggled on, and finally got well.

Dr. Turner considered this to be an uncommon condition; as to the cause in a fibroid lung, he believed that this dilatation of the tube might be brought about by contraction. But where there was no cirrhosis of the lung, it was difficult to explain the occurrence of the thin-walled sacs either by expiratory or inspiratory force. He asked whether they might not be analogous to dilatations in the intestinal canal and ureters where there was no obstruction, or whether they were due to a kinking or bending of the channel. He thought that cavities might be formed by softening together with the respiratory force.

Dr. Pitt briefly replied.

The meeting then adjourned.

The Annual General Meeting of the Hunterian Society was held at the London Institution, on Wednesday, February 13th, 1889. Mr. R. CLEMENT LUCAS, President, in the Chair.

Mr. ASHLEY WM. BARRETT was admitted a Fellow of the Society.

On the Motion of Mr. RIVINGTON, seconded by Mr. APPLEFORD, the Reports of the Council, Treasurer, and Librarian were received, adopted, and ordered to be printed and circulated amongst the Fellows.

Dr. PORT proposed, and Dr. STOWERS seconded, a vote of thanks to the President for his valuable services during the year; this was carried by acclamation, and acknowledged by the President.

A vote of thanks to the Vice-Presidents, Treasurer, and Librarian was then moved by Dr. HERMAN and seconded by Mr. TATHAM.

A special vote of thanks was proposed by Dr. HERMAN, and seconded by Mr. TATHAM, to Dr. Fotherby, the retiring Treasurer, for his invaluable services to the Society during the period he had held this office.

Mr. MARK HOVELL proposed, and Mr. ASHLEY BARRETT seconded, a vote of thanks to the Council, Secretaries, and Auditors. This was carried unanimously.

The Ballot List for Election of Officers for the ensuing year, as proposed by the Council, was unanimously adopted.

The meeting then adjourned.

GUNSHOT WOUNDS OF THE INTESTINES,*

BY

J. H. BARNARD, M.D. PARIS, M.R.C.S. ENG.,

Laureate of the Faculty of Medicine of Paris ; Corresponding Fellow of the Hunterian Society ; Physician to the Victoria Home and to the British and American Young Men's Home and Institute, Paris ; S. John Ambulance Association Lecturer in Paris.

Frequently-recurring discussions on penetrating gunshot wounds of the abdomen, and the ever-increasing number of converts to the treatment of this terrible accident by early laparotomy show that the do-nothing opium treatment has been found unsatisfactory, and that it is felt that, in these days of bold abdominal surgery, it behoves the Surgeon to do something more for the relief of these desperate cases than fold his arms in the vain expectation that opium will save his patient. That this expectation is, in the vast majority of cases, a vain one, reference to surgical literature abundantly demonstrates. It is the object of this communication to furnish proofs of this, and to urge upon Surgeons the absolute necessity of clearing up, without delay, any doubt as to the abdominal cavity having been penetrated with a view of immediate recourse being had in that event to laparotomy *through the linea alba*.

Frequency of Penetrating Gunshot Abdominal Wounds.—Of all cases under treatment in the wars, from the Crimean to the Franco-German inclusive, the abdomen was injured in 3·8 per cent. In the War of the Rebellion the proportion was 3·3 per cent. The proportion dying on the battle-field without treatment is unknown (Otis¹).

Relative frequency of Wounds of the Large and Small Intestines.—Of 650 cases of penetrating wounds, the small intestine

* Being a *résumé* of a Thesis (Honourable Mention) presented on July 6th, 1887, for the Degree of M.D. Paris.

¹ "Med. and Surg. Hist. of the War of the Rebellion," Surg. Vol., pt. II., 1876.

was perforated in 50, the large in 89. In more than 500 no information was procurable.

Order of frequency of Wounds of different portions of the Intestinal Canal.—1st, small intestine (ileum most frequently); 2nd, transverse colon; 3rd, cæcum; 4th, ascending colon; 5th, duodenum (Bardeleben¹ and Donau²).

Number of Bowel Perforations.—There are rarely more than two coils wounded, thus giving an average of four perforations.

Seat of Perforations.—Very variable. Parkes³ states (37 experiments on animals) that it is impossible to determine the seat of perforations from the situation of the apertures of entry and of exit, the bullet being easily deflected by an aponeurotic edge, &c.

Nature of Lesion.—No necessary relation exists between the extent of the lesion and the size of the bullet (Parkes). It may vary from a simple nick to a complete perforation (specimens of both in Hamilton's case⁴). The edges are often ragged and blackened. The plugging of the perforation by mucous membrane (*bouchon providentiel*) was never once observed by Parkes, but was present in Bull's case⁵ in all seven wounds (17 hours after accident), and in Hamilton's (two hours after accident). In neither was there any escape of fæces, proving that a considerable time may elapse before this occurs. See also Erichsen's two cases,⁶ where, in one instance, no extravasation was found p. m. (24 hours after accident), the intestines being full of fæces. In the other (descending colon severed and two perforations of small intestine), the patient survived two days, no extravasation being found post-mortem. That Parkes' assertion

¹ "Lehrb. der Chir. und Operat.," Berlin, 1865.

² "Über die Schussver. des Darmkan.," Leipzig, 1868.

³ "Med. News," May 17th, 1884.

⁴ "Journ. Amer. Med. Assoc.," 1885, II., p. 202.

⁵ "New York Med. Journ.," Feb. 14th, 1885.

⁶ "Science and Art of Surg.," 8th ed., vol. I., p. 853.

(extravasation inevitable) is too absolute is further proved by reports of cases by Fleury,¹ Bull,² Jersey,³ Annandale.⁴ Gross of Philadelphia (experiments on dogs in 1843) found that a perforation of 25 m. m. always involved fæcal extravasation, although hernia of the mucous membrane was the rule.

The chances of fæcal extravasation being limited by adhesions appear to be slender. Otis says it is possible, but exceptional. (See case in Otis, p. 68, where patient survived one month with an enormous circumscribed extravasation. Unfortunately, the portion of the intestine involved is not indicated.) The escape of gas by the perforation is certainly not constant, for tympanites is often absent for some time after the accident. The intestinal walls are often contused or present ecchymoses. As this contused tissue may slough, it is important to pare the edges and suture them (*v.* T. G. Morton's case⁵). John Bell has admirably described this complication of acute peritonitis on the 8th or 10th day, from fæcal extravasation consecutive to sloughing of a contused spot. Contusions of the mesentery should be similarly treated.

Hæmorrhage.—Division of a vessel is common. See Otis, cases 607 and 506 (death from wound of internal iliac vein and an intercostal artery respectively), and Morton, a similar case. In Hamilton's case (successful laparotomy) there supervened pelvic hæmatocele from an unrecognised wound of a mesenteric branch. Hæmorrhage through the skin-wound is rare; per anum, exceptional (Tremaine⁶), a late sign (MacCormac). Parkes lays particular stress on the tendency intraperitoneal

¹ "Gaz. des hopitaux," March 17th, 1887.

² "Annals of Surg.," 1886, vol. IV., p. 468.

³ *Ibid*, p. 528.

⁴ "Lancet," Apr. 25th, 1885.

⁵ "Journ. Amer. Med. Assoc." Feb. 26th, 1887.

⁶ "Med. News," Nov. 27th, 1886.

⁷ "Brit. Med. Journ.," May 7th, 1887.

hæmorrhage has to persist, even when the vessel divided is insignificant in size.

Foreign Bodies.—The bullet is rarely discovered at the operation; it has often been passed per anum. (12 examples in Otis, in 11 of which the colon was wounded; 15 reported by Paré, Valleriola, Patinus, Franc, Purmann, Faudacq, Bilguer, Ravaton, Voelker, Guthrie, Longmore, Stromeyer, Lennox and Chenu. The expulsion occurred from 3 to 30 days after accident. In Hamilton's case the bullet was voided on the 12th day). Frequently, fragments of clothing are forced into the abdomen (Freyer,¹ Wright,² Heddens,³ Trélat⁴).

Traumatic hernia is rare. It occurred in Freyer's case. The omentum protrudes more frequently, but this also is exceptional (ex. in Otis, p. 36).

Complications.—Bladder (Pozzi,⁵ Abbe,⁶) often enough implicated, also stomach (T. G. Morton). In Morton's case, the stomach-contents were seen (at operation) to flow from four wounds of that viscus. This patient died of hæmothorax, due to an unrecognised wound of an intercostal artery.

SYMPTOMS.

Even when the lesions are serious, the symptoms are far from being constant. Bull's patient⁷ (3 bowel wounds) walked to hospital. Morton speaks of a man who, little suspecting he had even been shot, presented multiple perforations of the bowel. Trélat's patient walked across the ward and undressed himself. The different signs and symptoms, with their value, are given below (Diagnosis).

¹ "Annals of Surg.," 1886, vol. IV., p. 344.

² "Lancet," Feb. 7th, 1885.

³ "Trans. Med. Assoc. St. of Missiouri," May, 1886.

⁴ "Semaine Méd.," Dec. 22nd, 1886.

⁵ "Gaz. Méd. de Paris," Jan. 15th, 1887.

⁶ "Med. News," 1886, XLIX., p. 528.

⁷ "Annals of Surg.," 1886, Dec., p. 468.

DIAGNOSIS.

The diagnosis of penetrating abdominal wounds may be easy, or, on the other hand, doubtful until peritonitis or other complications arise. The positive signs of penetration are :—

1. Protrusion through the skin-wound of a coil of intestine, damaged or sound, or of omentum ; 2. Escape by the skin-wound of gas, fæces more or less formed, or of entozoa (see Otis, cases 172, 215, 221, A5) ; 3. Profuse hæmorrhage by the skin-wound not explicable by division of a vessel of abdominal wall ; 4. Expulsion of bullet per anum.

These signs are most frequently absent.

Shock is generally well-marked, but is too inconstant a symptom whereon to base a diagnosis. Besides, it is often present in simple contusions of the abdomen (Le Gros Clark¹). It is highly important to discriminate between true shock and collapse due to intraperitoneal hæmorrhage. When the depression becomes more and more profound, the pulse very frequent and poor, the respiration slowed, superficial and sighing ; when subsultus and rigidity are added to pallor and coldness of the integuments, and especially when the temperature is markedly subnormal, we may suspect hæmorrhage. Dulness on percussion in the flank enabled Bull to correctly diagnose hæmorrhage.² Parkes, in his experiments, never once observed shock from uncomplicated perforation of the intestine ; it invariably indicated hæmorrhage. *Early hæmorrhage from the rectum* (most frequently absent) strengthens the diagnosis of a wound of the bowel (Bryant of New York, and Gross). In several cases, including Bull's³ (wound of sigmoid flexure and six of ileum) rectal examination yielded no information. In Trélat's case, an enema brought away normal fæces. *Early emphysema around skin-wound* seems only to have been observed by

¹ Lect. on Princip. of Surg. Diagnosis.

² "Med. News," Nov. 27th, 1886.

³ "New York Med. Journ.," Feb. 14th, 1885.

Erichsen.¹ It may be developed round nonpenetrating wounds (Bryant of New York²). Morton³ cites a case of his own where this phenomenon could not be explained by any intestinal or pulmonary lesion. He points out that a wound of the lung may, in fact, occasion its occurrence. Opinions vary as to the value of *early tympanites* (absent in several cases). Le Gros Clark states that it frequently accompanies severe contusions. Gross⁴ says that, if uncircumscribed, it is perhaps the best sign of a bowel-wound. The *substitution for liver dulness of abnormal resonance* is, according to Bryant of New York, almost pathognomonic of a bowel perforation, but he points out that it may be due to the adhesion of the intestine to the abdominal wall, or to distension of the colon with or without cirrhotic atrophy of the liver. This sign was observed by Bull⁵ six hours after the accident. *Abdominal pain and tenderness* (localised or diffused) is present in most cases. *Tenesmus* was complained of in two of Bull's cases. *Vomiting* is inconstant. If the stomach be implicated, the matters may contain blood (Morton's case). *Retention of urine* is frequent (shock). The urine may be bloody when kidney or bladder involved (not so in Pozzi's case).

PROGNOSIS.

Of total wounded dying on the battle-field, one-tenth succumb to abdominal wounds (Otis). In the War of the Rebellion, of 653 cases of bowel-wounds (in vast majority seat of perforation unknown), 484 died, 118 recovered, while in 51 cases the result is unknown. In 68 cases diagnosed as penetrating abdominal wounds by M. Nimier in Tonkin, the mortality reached 77·94 per cent. We are not told in what proportion the large intestine was exclusively involved.

¹ "Science and Art of Surgery," 8th ed., vol. I., p. 851.

² "Med. News," Nov. 27th, 1886.

³ "Journ. Amer. Med. Assoc." Feb. 26th, 1887.

⁴ Paper read before Amer. Surg. Assoc., 1884.

⁵ "Med. News," Nov. 27th, 1886.

We have collected 16 examples of penetrating abdominal wounds without perforation of the bowel. (Otis,¹ Rundle,² Beck,³ Le Dentu,⁴ Buchanan,⁵ Andrews,⁶ Bull,⁷ Gaston,⁸ Heddens.⁹) In five of these, the integrity of the intestines was proved post-mortem and in two by laparotomy. In the rest it is only a matter of inference. M. Reclus, in a number of recent experiments on dogs, observed this phenomenon once only. Practically, penetration is synonymous with wound of the intestine, the exceptions being exceedingly rare.

Wounds of the Large Intestine.—Otis says that while examples of recovery from wounds of the transverse colon were rare, several were seen from wounds of the cæcum, and still more from wounds of the sigmoid flexure and descending colon. Fæcal fistulæ were left in nearly all, most of them closing spontaneously (owing to absence of “spur”) Of 59 of these wounded men, 41 recovered, 4 died in from 4 to 6½ years; 4 others probably survived.

Otis gives for wounds of the cæcum, sigmoid flexure and rectum a mortality of 42·7 per cent. Thirty-four cases (with 4 deaths) of wounds of the rectum were complicated with wound of the bladder. For examples of recovery from wounds diagnosed as wounds of the large intestine, see Newell,¹⁰ O’Meagher,¹¹ Andrews¹² (2 cases). All were treated with opium; only in Newell’s case was the peritoneal cavity opened up for

¹ Loc. cit.

² “Med. Times and Gaz.,” 1886, vol. i.

³ “Chir. der Schuerverletzungen,” Frieberg, 1872.

⁴ “Gaz. Méd. de Paris,” Jan. 8th and 15th, 1887.

⁵ “British Med. Journ.,” March, 1883.

⁶ “Journ. Amer. Med. Assoc.” 1885, p. 177.

⁷ “Med. News,” 1886, p. 524.

⁸ “Med. and Surg. Rep.,” June 12th, 1886.

⁹ “Trans. Med. Assoc. St. of Missouri,” May, 1886.

¹⁰ Cited by Marion Sims, “Brit. Med. Journ.,” 1882, p. 184.

¹¹ “Med. Rec.,” July 10th, 1875.

¹² “Annals of Surg.,” vol. ii., 1885, p. 420.

the extraction of *débris* of clothing. In three cases, the projectile was voided per rectum.

Wounds of the Small Intestine.—Otis was unable to find a single authentic example of recovery from this lesion. Such examples are supposed to be furnished by the cases of Massey (preparation at Netley; interpretation doubted by Longmore), Guthrie¹ (bilious discharge from wound), Thompson² (portion of fluids swallowed escaped, during 15 days, from skin-wound, together with 2 ascarides lumbricoides), Poneyès,³ Demme (at Solferino; Otis believes it was a wound of the cæcum), Volckmann (2 cases during Austro-Prussian war), Michaëlis, Desprès, Tillaux, Berger and Nancrede. These, with five examples (doubtful, Otis) recorded during the War of the Rebellion, bring up the total to 17 cases.

We would recall to mind the error of diagnosis committed by Velpeau in a case⁴ (death from phlebitis after venæsection) where, the aperture of entry being situated to the right of the umbilicus, that of exit was situated to the left of the spine. P. M., no penetration was discovered.

Trélat gives for wounds of the small intestine a mortality of 99 per cent., and for wounds of the large intestine 92 to 96 per cent. Greig Smith says that in wounds of the small intestine, "death is almost inevitable," and that from wounds of the large intestine, 80 per cent. die.

The practical lesson to be deduced from the foregoing statistics is that however efficacious the classical, orthodox treatment by rest, opium and low diet may be in a certain proportion of cases of wounds of the large intestine, it is almost invariably powerless against lesions of the small intestine.

¹ "Wounds and Inj. of Abd.," p. 35.

² Report after Waterloo.

³ "Bordenave, Mém. de l'Acad. Roy. de Chir.," vol. ii., p. 519.

⁴ "Gaz. Méd. de Paris," 1848.

Marion Sims states—and his views are borne out by M. Nimier's experience in Tonkin—that penetrating wounds situated above the brim of the pelvis are always fatal, while in those situated below, on account of the “natural drainage” established, recovery generally ensues.

CAUSE OF DEATH.

Trélat attributes death, in the majority of cases, to septic peritonitis, set up by fæcal extravasation; MacCormac to hæmorrhage. It is probable that rifle bullets kill mostly by producing hæmorrhage, while in civil life, where revolver wounds are the most common, some form of peritonitis is, in most cases, responsible for the fatal result. It must not be forgotten that shock is, in wounded soldiers, more pronounced after intense excitement and under defeat.

A good many, doubtless, die of ordinary acute peritonitis, revealed by the well-known clinical *tableau*. But others sink without ever having presented such symptoms. Nancrede's patient (2 wounds of stomach and 2 of duodenum; laparotomy), after doing well for 48 hours, is seized with a series of convulsions, the temperature rises considerably, and he dies, according to Nancrede, of *sapremia*. M. Pozzi's patient (suture of 6 wounds of small intestine and 2 of bladder; no fæcal extravasation; infiltration of urine into prevesical cellular tissue) died with following symptoms: temperature of 96·4 F., coldness of integuments, vomiting, only ceasing a few hours before death, paroxysms of dyspnœa, nightmare, stertorous breathing. P. M., no trace of peritonitis, but a considerable narrowing of intestine at a spot where two perforations had been joined previous to suturing. M. Trélat ascribes death to this circumstance, while M. Pozzi believes it was due to intestinal paralysis from exposure to the air during the operation, this paralysis having led to septicæmia. M. Pozzi, however, states that commencing peritonitis may be revealed only by such a

paralysis, naked-eye appearances being wanting. M. Le Dentu thinks this patient died of traumatic shock from arrest of the functions of the abdominal nervous plexuses.

Abbe's patient (suture of 4 wounds of jejunum and 1 of bladder), dying three hours after the operation, presented symptoms of pulmonary œdema, had a single convulsion and anuria. P. M., intense purulent peritonitis, fatty degeneration of heart, granular condition of some of convoluted tubules of kidney, with atrophy of some glomeruli and some sclerosis, fatty liver and some cirrhosis. Abbe attributes death to uræmia. Marion Sims tells us¹ that he learnt at Sedan "this great truth," viz., that all those who succumbed to abdominal wounds died of septicæmia, the autopsy revealing an abundant effusion of bloody serum into the peritoneal cavity without a trace of peritonitis. He says that for such patients to die of peritonitis is quite exceptional, and that septicæmia kills in a few hours, while peritonitis kills only in as many days. He lays great stress on the toxic properties of the reddish fluid so frequently found in the abdominal cavity.

Without going as far as Sims, we must allow a place, side by side with ordinary acute and purulent peritonitis, for septicæmia, due to the introduction into the blood of micro-organisms or of ptomaines. The absorption of the ptomaines formed in the intestine of a healthy man in 24 hours would suffice to kill him were excretion arrested (Bouchard). This *savant* has isolated from healthy human fæces a substance which produces violent convulsions in rabbits. For Bouchard, uræmia is really stercoræmia, due to the stoppage of the excretion of ptomaines by the kidneys. Bocci has found in the urine a substance having the same action as curare. We know that in acute intestinal obstruction there is partial or complete suppression of urine, this symptom being referred by Fagge² to

¹ Loc. cit.

² "Princip. and Pract. of Med.," 1st ed., vol. ii., p. 209.

the collapse characterising all forms of this malady. Would an examination of the urine, with reference to the excretion of ptomaines, aid us to elucidate the cause of death in these cases?

TREATMENT.

Seeing that penetrating gunshot wounds of the abdomen almost inevitably involve perforation of the intestines—that, even if the bowel escape, a blood-vessel may be divided, and that the resulting hæmorrhage (characterised by its extraordinary persistency, even if only a small vessel be wounded,) may, of itself, cause death either directly or indirectly—that other contents of the abdomen may be implicated, or foreign bodies introduced—that “of all penetrating wounds, nearly 88 per cent. are fatal” (Greig Smith), cases of wounds of the small intestine being desperate—and, finally, that laparotomy, properly performed, can add nothing to the danger—it is of vital importance to determine promptly, in any given case, if the bullet have penetrated the abdomen or not. That intra-peritoneal hæmorrhage is as much to be dreaded as wounds of the bowel is proved by cases reported by Le Dentu¹ (death from purulent peritonitis provoked by an effusion of blood from section of an omental branch; bowel undamaged), Gaston² (shock for three days; laparotomy on fourth day; post-mortem, bowel undamaged; a collection of bloody decomposing serum). In Andrews’ case (successful laparotomy), no lesion but division of vessels was found. Heddens, in his case, traced the bullet-track to the liver, extracted some *débris* of clothing and 4 ozs. of blood; the patient recovered.

With Bull,³ Tremaine,³ Varick,³ Wyeth,³ and MacCormac,

¹ Loc. cit.

² “Med. and Surg. Rep.,” June 12th, 1886.

³ Discussion before New York St. Med. Assoc., Feb., 1887. In “Med. News,” Nov. 27th, 1886.

we believe the treatment of any given case of wound of the abdomen may be thus resumed:—

1. Before anything else is done, make every preparation for the performance of laparotomy.

2. When the positive signs of penetration already indicated, are present (all others are unreliable), cleanse and dress the skin-wound or wounds antiseptically, and proceed at once to perform laparotomy *through the linea alba*.

3. In the absence of positive signs, cleanse antiseptically the skin-wound, and avoiding digital and mounted-sponge examination, see if a *thick* flexible probe, delicately handled, can be introduced through the wound into the abdominal cavity. If unsuccessful, enlarge the wound up to 3 or 4 inches, and dissect carefully down to the peritoneum. Should that membrane be found perforated, laparotomy, always through the linea alba, is indicated.

4. Always pass a catheter (often retention from shock, and bloody urine would point to implication of kidney or bladder).

5. If the shock tend to disappear, defer the operation for a while, and inject ether subcutaneously. If the shock deepen, and the temperature fall below normal (hæmorrhage) operate without delay.

6. Implication of other abdominal viscera is no contra-indication to laparotomy. If the liver be involved, laparotomy alone can probably confer any chance of safety (see Heddens' case).

7. The earlier laparotomy is performed the better. Successful operations were done, on an average, within $7\frac{3}{4}$ hours; unsuccessful ones within $23\frac{3}{4}$ hours (Morton). [Some of these were done for stabs and incised wounds]. Bull's patient (laparotomy 17 hours after accident) recovered, despite the existence of peritonitis at the time of operation.

8. The above rules should be adhered to in town and hospital practice. In the country, the want of intelligent assistance, instruments, &c., and the inexperience of the surgeon will always constitute unfavourable conditions. Nancrede lays stress on the extreme difficulty often attending the search for perforations.

In war-time, the obstacles (hurry, confusion, &c.) will frequently be insurmountable. Most of these patients die rapidly of hæmorrhage before aid can reach them. Army surgeons should practise suturing bowel perforations (Lambert's suture). It took Bull 1 hr. 50 min. to stitch up two bowel-wounds and tie a few arteries.

LAPAROTOMY.

Want of space compels me to omit the description of this difficult operation. I may mention, however, that the incision should invariably be made along the *linea alba*; otherwise, bowel perforations, a divided blood-vessel or a foreign body may easily be overlooked (see cases recorded by Parkes,¹ Baudens,² Bentley,² Kinloch,² Jordan Lloyd,² Trélat²). American surgeons attach much importance to the *irrigation* with 4 or 5 quarts of an antiseptic solution at 100° to 109° F. of the abdominal cavity previous to the "toilette" of the peritoneum. It appears to act powerfully in combating shock. The solutions employed are Boric acid at 3 p. c. (T. S. K. Morton), Corrosive sublimate at 1/5000 or 1/10,000 (T. G. Morton, Roberts), Carbolic acid at 2½ p. c. (Bull). Wylie has employed irrigation with great advantage in ovariectomies.

For hints as to treatment after operation, I refer the reader to Nancrede.³ He warns us against the exhibition of opium alone in that form of peritonitis of sudden onset, with persist-

¹ "Med. News," Nov. 27th, 1886.

² See Table of Operations.

³ "Med. News," Nov. 27th, 1886.

ence of shock, and which is manifested by apathy without loss of consciousness, elongation of the limbs, drawn features, and feeble pulse. He says that opium given alone would certainly kill, but that small doses of morphia combined with large doses of atropine act as a heart-stimulant.

The following is the most complete list of operations for gunshot wounds of the abdomen I was able to publish at the time my Thesis was sustained. Kinloch, in 1881, was the first to perform laparotomy properly so called for penetrating wound of the abdomen, his predecessors having only sutured wounds of the bowel protruding through the bullet-orifice, or slit up, at most, the bullet-wound previous to suturing any perforations of the bowel thus exposed.

(r) Recovery ; (u) result unknown ; (s) stomach wounded, bowel escaping.

- (r) Larrey, 1799.
Baudens, 1830 ("Clinique des plaies d'armes à feu," 1836).
- (r) Baudens, 1831 ("Günther, Operationslehre, Abtheilung, IV.").
- (u) Pirogoff, 1849 ("Rapp. méd. d'un voyage au Caucase, and Langenbeck's Archiv.," XXVII., 278).
- (r) Gissing, 1858 (Otis).
Bentley (Otis, case 228, p. 72).
Judson (Otis, case 229, p. 73).
Gill (Otis, case 310, p. 113).
- (r) Sevastopoulos ("Bulletin méd.," April 24th, 1887).
* Le Dentu ("Gaz. méd. de Paris," Jan. 8th and 15th, 1887).
- (r) Freyer ("Annals of Surg.," vol. IV., 1886).
Kinloch, 1881 ("North Carol. Med. Journ." 1882, X. 1).
- (r) Newall of New Brunswick ("Brit. Med. Journ.," Feb. 25th, 1882).
Jordan Lloyd ("Brit. Med. Journ.," 1883, p. 560).
- (s) (r) Kocher ("Korrespond. für Schweizer Aerzte," 1884).
- (r) Andrews ("Journ. Amer. Med. Assoc.," 1885, p. 177).
- (r) Hamilton ("Journ. Amer. Med. Assoc.," 1885, p. 202).
Annandale ("Lancet," April 25th, 1885).
- (r) Bull ("New York Med. Journ.," Feb. 14th, 1885).
Parkes ("Chicago Med. Journ. and Exam.," 1885, p. 412).
Ramsay ("N. Western Lancet," 1885, p. 377).
- (s) Billroth ("Prof. Billroth's Klinik," 1886).
Bull ("Med. News," Nov. 27th, 1886).
Bull ("Med. News," 1886, p. 524).

* In Le Dentu's case, the wound was caused by a bar of copper.

- (r) Bull ("Annals of Surg.," 1886, p. 468).
 Abbe ("Med. News," 1886, p. 528).
 Dennis ("Med. News," 1886, p. 225-253).
 Dennis ("Med. News," 1886, p. 225-253).
 Gaston ("Med. and Surg. Rep.," June 12th, 1886).
 Jersey ("Med. Rec.," Oct. 16th, 1886).
 Lutz ("Weekly Med. Rev.," 1886, p. 514).
 Nancrede ("Philad. Acad. of Surg.," 1886).
 Richardson ("New Orleans Med. and Surg. Journ.," 1886, p. 867).
 Seymour ("New York Med. Journ.," 1886, p. 209).
 Trélat ("Semaine méd.," Dec. 22nd, 1886).
 Pozzi ("Gaz. méd. de Paris," Jan. 15th, 1887).
 Morton, T. G. ("Journ. Amer. Med. Assoc.," Feb. 26th, 1887).
 Briddon ("New York Med. Journ.," 1887, p. 75).
 (r) Heddens ("Trans. Med. Assoc. St. of Missouri," May, 1886).
 Mackellar, 1886 ("Lancet," 1887, I., p. 37).

Taking this list as a whole, and counting Pirogoff's case amongst the deaths, we have 40 operations with 12 recoveries, or a mortality of 70 per cent. In the cases of Andrews, Bull (No. 3), Heddens, Gaston, and one of Dennis', the intestine was undamaged; hæmorrhage was the only lesion in Andrews' and Gaston's cases. In Bull's, the left lobe of the liver was nearly completely severed; in Heddens', the liver was probably damaged, and in Dennis' the liver and portal vein were wounded.

I am indebted to Sir W. MacCormac's valuable statistics ("Brit. Med. Journ.," May 14th, 1887) for some of the names given above.



